

# **Comparative Performance Testing**

MAY 2018

# CANON OEM INKS VERSUS THIRD-PARTY "COMPATIBLE" INKS

# **Test Objective:**

Keypoint Intelligence – Buyers Lab (Buyers Lab) was commissioned by Canon Europe BV (Canon) to conduct a comparative test of genuine OEM ink cartridges against "compatible" cartridges from a series of third-party brands. The OEM and third-party cartridges were run on the following devices: Canon PIXMATS3150, Canon PIXMATS5050, Canon PIXMATS5150, and Canon PIXMA iP7250. While six third-party cartridge types were tested with Canon PIXMATS3150 device, 10 compatible brands were tested in the other devices. Cartridges for all ink cartridge brands were tested for page yield, reliability, and image quality. To eliminate cross contamination, brand-new devices were dedicated to the testing of each ink cartridge brand, with 40 devices used in total. Each ink cartridge brand was tested using an ISO test document and Buyers Lab's proprietary image quality test targets, with each device being run until it had consumed 10 sets of ink cartridges. Image quality was graded from one to three, with one-grade output being unusable, two-grade output being suitable for internal company use only, and three-grade output being suitable for use either internally or externally. Image quality samples were printed on 80 gsm media and 260 gsm glossy media, except for output produced using a Canon PIXMA TS3150, which was printed on 80 gsm media only. All devices and cartridges used in testing were purchased by Buyers Lab on the open market.

# **Executive Summary**

In Buyers Lab's reliability testing, the Canon OEM cartridges performed flawlessly, with no defective cartridges, image quality degradation, or defects. In contrast, some of the third-party brands suffered multiple out-of-box failures. To give one example, 100% of the Prestige-branded cartridges tested with the Canon PIXMA TS5150 were out-of-box failures. Of the 20 Picture Expert-branded cartridges tested with the Canon PIXMA TS3150, 15 were out-of-box failures. Out-of-box failures aren't just irritating, they can cause downtime that affects business, and they incur further time costs through the chasing of refunds and the purchase of replacement cartridges.

Even some of the third-party cartridges that weren't declared out-of-box failures produced such low yields that some brands didn't even produce their first image quality samples at 250 or 500 impressions. The average CMY yield of the 123-branded cartridges produced when tested with the Canon PIXMA TS5150 was 97% below that of the genuine Canon ink, for example, at just 12 impressions. Although the genuine Canon cartridges didn't always produce the highest page yields, they consistently exceeded their claimed yield.

All cartridge brands produced text and fine line image quality samples to a good standard with the exception of 123-branded cartridges used in the PIXMA TS3150, which produced three text and fine line quality samples that were deemed to have minor defects.





Only the Canon OEM cartridges produced halftones that were deemed good enough to be used both internally and externally as customer-facing content. Every other rival cartridge brand produced at least one halftone quality sample that Buyers Lab's technicians deemed to have a minor or severe defect. In the case of the Prestige-branded cartridges used in the Canon PIXMA TS3150, to give just one example, 100% of the 12 halftone quality samples produced were deemed to have a defect (11 severe and one minor). In addition, every cartridge brand except the Canon OEM failed at least one instance of the waterfastness test. All tested brands performed well in the highlighter smear testing.

Those who demand high page yields, great reliability, top-notch image quality, and cartridges that work straight out of the box should invest in genuine Canon ink cartridges.

# Reliability

#### Ink cartridge reliability

Every genuine Canon ink cartridge tested proved to be reliable out of the box, in contrast to some of the tested rival cartridge brands.

#### Canon PIXMA TS3150

The Canon OEM cartridges performed flawlessly, with no out-of-box failures, unlike the tested third-party brands which each had at least one cartridge that was declared an out-of-box failure. In fact, 15 out of 20 of the Picture Expert and 13 out of 20 of the Stinky Ink cartridges were declared out-of-box failures.

#### Canon PIXMA TS5050

The majority of ink cartridges performed reliably when used in the PIXMA iP7250, with just two cartridge brands producing out-of-box failures: 123 (2 failures) and Colour Direct (1 failure).

#### Canon PIXMA TS5150

The Canon OEM ink cartridges performed well throughout testing with the Canon PIXMA TS5150, with no reliability problems and no out-of-box failures. However, one tri-ink cartridge produced fewer prints than we'd expect given the performance of the other OEM tri-ink cartridges tested in the Canon PIXMA TS5150. This is in stark contrast to the third-party cartridges tested, with every third-party brand producing at least eight out-of-box failures. Indeed, all 20 (10 tri-ink, 10 black) cartridges from of the Prestige and Cartridge Kingdom cartridges were declared out-of-box failures.

#### Canon PIXMA iP7250

Most of the cartridge brands performed reliably when run on the PIXMA iP7250, with four brands- Colour Direct (3 failures), KMP (1 failure), Picture Expert (2 failures), and Stinky Ink (1 failure)-suffering out-of-box failures.





Out-of-Box Failures				
Canon PIX	Canon PIXMA TS3150			
Cartridge Brand	Out-of-Box Failures			
Canon	0			
123	6			
Picture Expert	15			
Stinky ink	13			
Prestige	1			
Cartridge Kingdom	2			
CMYBabee	1			

Canon PIXMA TS5050			
Cartridge Brand	Out-of-Box Failures		
Canon	0		
123	2		
Picture Expert	0		
КМР	0		
HQ-Patronen	0		
Prestige	0		
Peach	0		
Stinky Ink	0		
Cartridge Kingdom	0		
LX Tek	0		
Colour Direct	1		

Canon PIXMA TS5150				
Cartridge Brand	Out-of-Box Failures			
Canon	0			
123	18			
Picture Expert	10			
КМР	10			
HQ-Patronen	11			
Prestige	20			
Peach	8			
Cartridge Kingdom	20			
5 Star	16			
CMYBabee	8			
Stinky Ink	8			





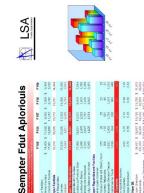
Canon PIXMA iP7250				
Cartridge Brand Out-of-Box Failures				
Canon	0			
123	0			
Picture Expert	2			
Stinky ink	1			
HQ-Patronen	0			
Prestige	0			
Peach	0			
КМР	3			
Cartridge Kingdom	0			
LX Tek	0			
Colour Direct	1			

Cartridges classified as "out-of-box" failures are those that either could not be run due to excessive ink leakage, are broken, or have missing parts, as well as cartridges that produced 20 or fewer acceptable pages in the test. Cartridges classified as having "early end of life" are those that produced less than 75% of the rated yield.

# **Page Yield**

Buyers Lab conducted its page yield tests using the ISO 24712 test targets (shown below). Each cartridge brand was used on a dedicated, brand-new device until 10 cartridge sets had been exhausted.

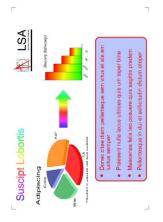






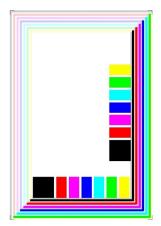
ISO 24712 Test Target Page 3

ISO 24712 Test Target Page 1



ISO 24712 Test Target Page 4

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ISO 24712 Test Target Page 2

ISO 24712 Test Target Page 5

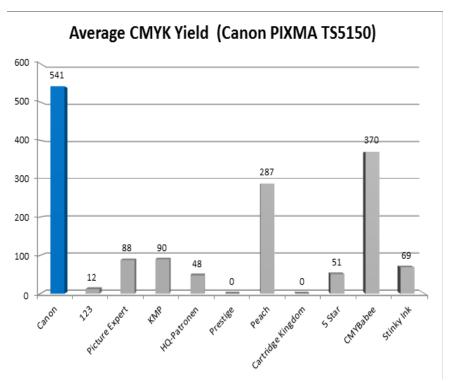
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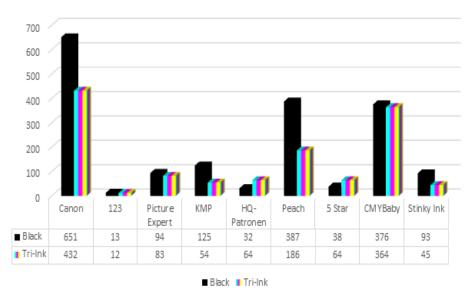


# Canon PIXMA TS5150

When tested on the Canon PIXMA TS5150, the Canon OEM ink cartridges produced much higher average yields than the third-party ink cartridges. Indeed, the Canon OEM's average black yield was still 68% higher than that of its nearest rival (Peach), and 4,947% higher than the average black yield of the 123-branded cartridges.



This graph shows the average tested yields of each cartridge brand tested using the Canon PIXMA TS5150.



# Average Yields (Canon PIXMA TS5150)

This graph shows the average colour and black page yields for each cartridge brand when tested on the Canon PIXMA TS5150. The Cartridge Kingdom and Prestige results aren't shown because they didn't produce a yield in testing.



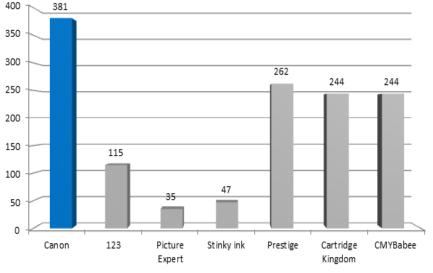


Percentage By Which Canon's Tested Yields Are Higher (Canon PIXMA TS5150)					
Cartridge Brand CMY Black CMYK					
123	3,496%	4,947%	4,247%		
Picture Expert	423%	592%	513%		
KMP	693%	421%	503%		
HQ-Patronen	573%	1,960%	1,031%		
Peach	131%	68%	89%		
5 Star	574%	1,604%	959%		
CMYBabee	19%	73%	46%		
Stinky Ink	867%	600%	687%		

This table shows the percentage by which the tested yield of the Canon OEM ink was higher than each of its rivals for average CMY, Black, and CMYK yields. The Cartridge Kingdom and Prestige results aren't shown because they didn't produce a yield in testing.

### Canon PIXMA TS3150

When tested on the Canon PIXMA TS3150, the Canon OEM ink cartridges produced much higher average yields than the third-party ink cartridges. The OEM cartridges' average CMY yield was 767% higher than the Stinky Inks' average CMY yield, for example, while the OEM cartridges' average black yield was 1,472% higher.



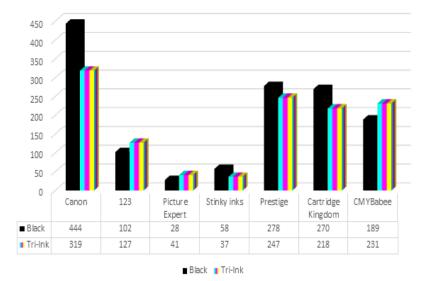
# Average CMYK Yield (Canon PIXMA TS3150)

This graph shows the average tested yields of each cartridge brand tested using the Canon PIXMA TS3150.





Average Yields (Canon PIXMA TS3150)



This graph shows the average colour and black page yields for each cartridge brand when tested on the Canon PIXMA TS3150.

Percentage By Which Canon's Tested Yields Are Higher (Canon PIXMA TS3150)							
Cartridge Brand	Cartridge Brand CMY Black CMYK						
123	151%	334%	233%				
Picture Expert	674%	1,472%	998%				
Stinky ink	767%	670%	708%				
Prestige	29%	60%	45%				
Cartridge Kingdom	46%	64%	56%				
CMYBabee	38%	135%	56%				

This table shows the percentage by which the tested yield of the Canon OEM ink was higher than each of its rivals for average CMY, Black, and CMYK yields.

# Canon PIXMA TS5050

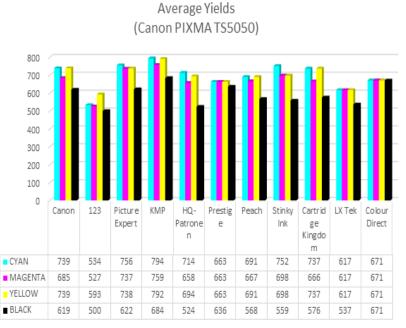
The Canon OEM ink delivered the third-highest average CMY yield with the Picture Expert and KMP brands producing 3% and 8% higher yields, respectively. The 123-branded cartridges were the worst performer, producing average CMY and CMYK yields that were 24% and 23% lower than the Canon OEM ink's average tested yields. The KMP and Picture Expert brands produced higher average yields than the Canon OEM inks in all colours, except for the Picture Expert brand's average yellow yield.





Average CMYK Yield (Canon PIXMA TS5050) 757 800 713 696 679 671 677 647 657 654 700 597 538 600 500 400 300 200 100 0 Cartridge tringdom colour Direct PictureExpert HOPatronen StinkyInk J. Let Prestife ~?? Reach 4<sup>th</sup> Canon

This graph shows the average tested CMYK yields of each cartridge brand tested using the Canon PIXMA TS5050. Two brands, Picture Expert and KMP, delivered higher yields.



CYAN MAGENTA VELLOW BLACK

This graph shows the average colour and black page yields for each cartridge brand when tested with the Canon PIXMA TS5050.

Average Yields Compared to PIXMA TS5050 (%)					
Cartridge Brand	CMY Compared To OEM	CMYK Cmpared To OEM	OEM'S CMY Above Third Party	OEM'S CMYK Above Third Party	
Canon	0%	0%	0%	0%	
123	-24%	-23%	31%	29%	
Picture Expert	3%	3%	-3%	-2%	
KMP	8%	9%	-8%	-8%	



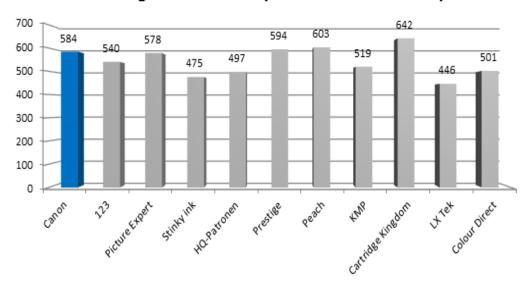


HQ-Patronen	-5%	-7%	5%	7%
Prestige	-8%	-6%	9%	6%
Peach	-5%	-6%	6%	6%
Stinky Ink	-1%	-3%	1%	3%
Cartridge Kingdom	-1%	-2%	1%	2%
LX Tek	-14%	-14%	17%	16%
Colour Direct	-7%	-4%	7%	4%

This table shows the percentage by which the tested average yields of the third-party inks differed to that of the Canon OEM ink.

# Canon PIXMA iP7250

The Canon OEM ink delivered the fourth-highest average CMY and CMYK yields, putting it in the top half of the cohort. The Prestige and Peach inks' average CMY yields were 2% higher than that of the Canon inks, while the Prestige and Peach inks' average CMYK yields are 2% and 3% higher, respectively. The lowest performing third-party cartridge brand was LX Tek, and the Canon OEM's average CMY and CMY yields were 32% and 31% high than LX Tek's, respectively.



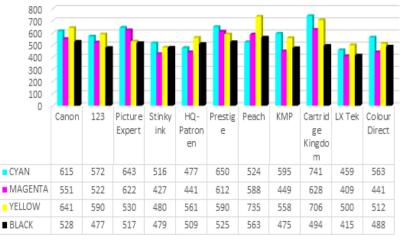
# Average CMYK Yield (Canon PIXMA iP7250)

This graph shows the average tested yields of each cartridge brand tested using the Canon PIXMA iP7250. Although the Canon OEM cartridges yielded more pages than most brands, three brands yielded between 10 and 58 more pages.





Average Yields (Canon PIXMA iP7250)



CYAN MAGENTA YELLOW BLACK

This graph shows the average colour and black page yields for each cartridge brand when tested on the Canon PIXMA TS5050.

	Average Yields Compared to PIXMA iP7250 (%)					
Cartridge Brand	CMY Compared To OEM	CMYK Cmpared To OEM	OEM'S CMY Above Third Party	OEM'S CMYK Above Third Party		
Canon	0%	0%	0%	0%		
123	-7%	-8%	7%	8%		
Picture Expert	-1%	-1%	1%	1%		
Stinky ink	-21%	-19%	27%	23%		
HQ-Patronen	-18%	-15%	22%	18%		
Prestige	2%	2%	-2%	-2%		
Peach	2%	3%	-2%	-3%		
KMP	-11%	-11%	13%	12%		
Cartridge Kingdom	15%	10%	-13%	-9%		
LX Tek	-24%	-24%	32%	31%		
Colour Direct	-16%	-14%	19%	17%		

This table shows the percentage by which the tested average yields of the third-party inks differed to that of the Canon OEM ink.

# Image quality

Buyers Lab assessed the image quality of the ink cartridge brands tested using its own proprietary image quality test targets (shown below). Buyers Lab's technicians printed the test targets at 250-impression intervals.







# **Buyers Lab Image Quality Test Targets**

IQ Test Target One

IQ Test Target Two

IQ Test Target Three

Image quality is assessed on halftones, text and fines, and photographic output, and the samples were subjected to a battery of tests to determine image quality. The results were then compared and graded from 1 (severe defect) to 3 (good). Examples showing things that are indicative of the difference in quality between the various grades are shown below.



Grade One (Severe Defect)

Grade Two (Minor Defect)

Grade Three (Good)



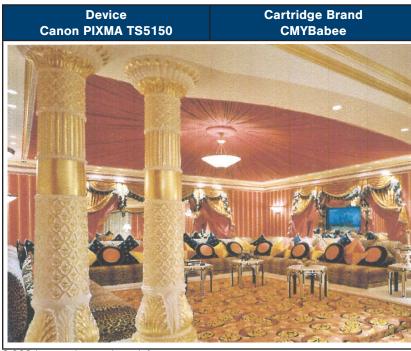


# **Examples of Image Quality Defects**



2,000 impressions, severe defect

The image above suffers from white banding that affects the quality of this image and renders it unsuitable for use outside of an organization and even informal use within an organization.

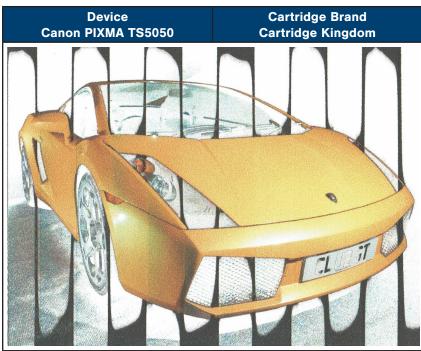


2,000 impressions, minor defect

The image above suffers from banding that affects the quality of this image and renders it unsuitable for use outside of an organization and even informal use within an organization.







500 impressions, severe defect

The lack of black ink has completely ruined this image and rendered it unusable for informal or formal use.



500 impressions, severe defect

The banding in this image is so apparent that it ruins the image; the banding detracts the viewer's attention from the image and affects the colours.

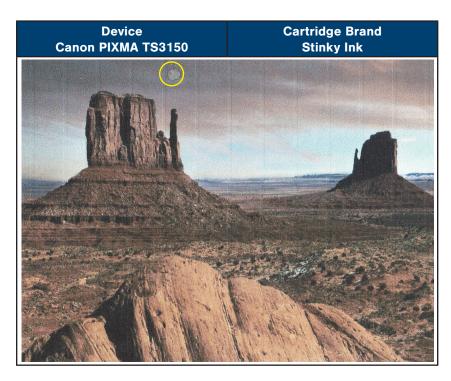






#### 500 impressions, minor defect

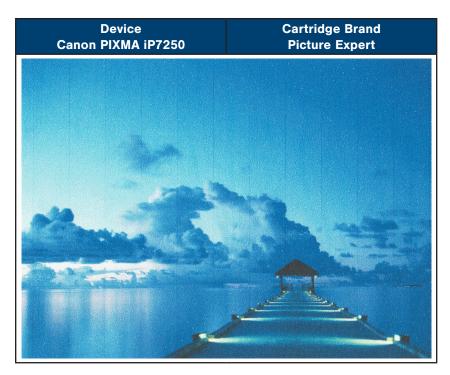
This image suffers from slight banding, but not enough to prevent its informal use within an organization.



250 impressions, minor defect This image is spoiled by banding and an odd anomaly (highlighted by the yellow circle).







1,000 impressions, minor defect Banding spoils this image and renders it useful for informal use within a company only.

# Canon PIXMA TS5150 (80 gsm)

# HALFTONES

All of the 20 halftone samples printed with the Canon OEM ink were considered good enough to use inside or outside of an organization. The only other brands whose image quality samples were all considered good were the KMP and HQ-Patronen brands, and the yields produced by these brands meant that they only produced three halftone samples. All the other brands produced at least two image quality samples that were deemed to have a minor defect, while the CMYBabee brand produced a halftone sample that was deemed to have a serious defect.

Indeed, 94% of the CMYBabee brand's halftone samples were deemed to have defects, with only one sample (6%) considered good enough for distribution outside of a company. Similarly, only one sample of the Picture Expert, Peach, 5 Star, and Stinky Ink brands' halftone samples were deemed to be good enough for distribution outside of a company.

Please note that the 123, Cartridge Kingdom, and Prestige brands did not produce a high enough yield to print any of the image quality targets.





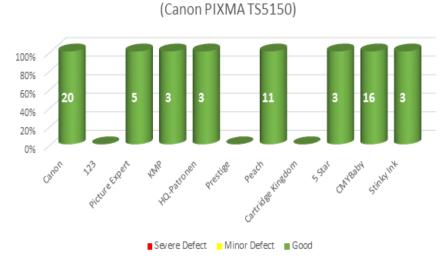
Halftone Quality (80 gsm) (Canon PIXMA TS5150)



This graph shows the percentage of each cartridge brand's halftone image quality samples that are considered to have a minor defect, a severe defect, or be good. Each grade is indicated by a colour, such as yellow, which represents a minor defect. As an example, 100% of the Canon OEM brand's image quality samples were deemed to be good, so 100% of the Canon OEM brand's cylinder is coloured green. The graph also shows the number of image quality samples of each grade (the Canon OEM brand produced 20 image quality samples, for example, while the KMP brand produced three).

#### **TEXT AND FINE LINES (80 GSM)**

The quality of text and fine lines of all ink cartridge brands was considered good. However, please note that the 123, Cartridge Kingdom, and Prestige brands did not produce a high enough yield to print any of the image quality targets.



Text and Fine Line Quality (80 gsm)

This graph shows the percentage of each cartridge brands' text and fine line image quality samples that are considered to have a minor defect, a severe defect, or be good. Each grade is indicated by a colour, such as yellow, which represents a minor defect. As an example, 100% of the Canon OEM brand's image quality samples were deemed to be good, so 100% of the Canon OEM brand's cylinder is coloured green. The graph also shows the number of image quality samples of each grade (the Canon OEM brand produced 20 image quality samples, for example, while the KMP brand produced three).



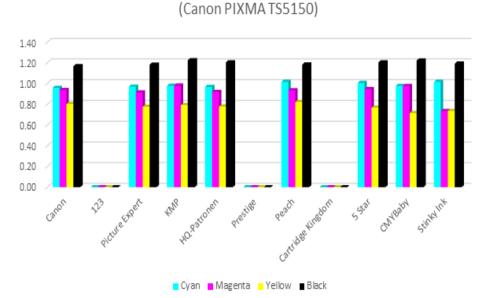


#### **OPTICAL DENSITY**

A higher optical density reading for black output indicates darker, deeper shades.

Average Print Densities				
Cartridge Brands	Cyan	Magenta	Yellow	Black
Canon	0.96	0.94	0.80	1.17
123	0.00	0.00	0.00	0.00
Picture Expert	0.97	0.91	0.78	1.18
KMP	0.98	0.98	0.79	1.23
HQ-Patronen	0.97	0.92	0.78	1.21
Prestige	0.00	0.00	0.00	0.00
Peach	1.02	0.94	0.82	1.18
Cartridge Kingdom	0.00	0.00	0.00	0.00
5 Star	1.01	0.95	0.77	1.21
CMYBabee	0.98	0.98	0.71	1.22
Stinky Ink	1.02	0.74	0.74	1.19

The higher the number, the higher the density.



Average Densities (80 gsm)

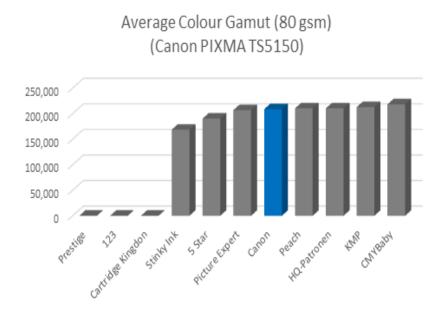
This graph shows the average optical densities of output from each cartridge brand. The higher the number, the higher the density.

# **Colour Gamut**

Overall gamut volumes were comparable among most brands, but 5 Star and Stinky Ink produced the lowest average colour gamut volume. More importantly, the difference between the Canon OEM brand's highest and lowest colour gamut volumes was much lower than that of the Stinky Ink and CMYBabee brands, which shows that the Canon OEM ink's colour gamut volumes were more consistent over time.



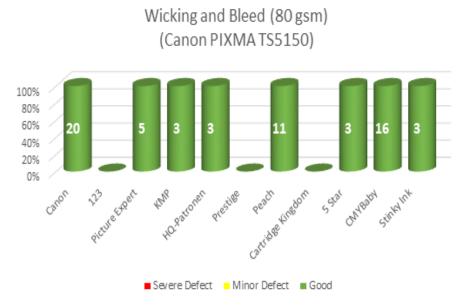




This graph shows the average colour gamut volume for each ink cartridge brand. Canon's average colour gamut is coloured blue.

# WICKING TEST

Wicking can cause output to look sub-par and text to be messy or even illegible. It manifests itself as thin streaks of ink that emanate from the intended print location, perhaps as a line emanating from a text character. In Buyers Lab's testing, none of the brands tested showed signs of wicking.



This graph shows the percentage of each cartridge brand's image quality samples that were considered to have a minor defect, a severe defect, or be good as a result of Buyers Lab's Wicking test. Each grade is indicated by a colour, such as yellow, which represents a minor defect.

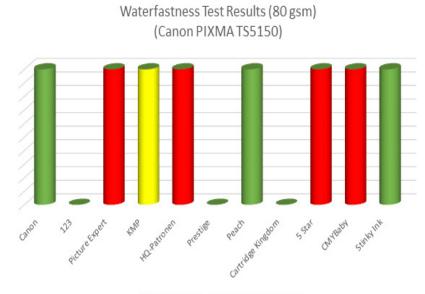




#### WATERFASTNESS TEST

Sometimes printed output will come in contact with moisture, so it's important for the end-user that exposure to that moisture doesn't have too much of an adverse effect on output. To test the impact of moisture on copy, Buyers Lab's lab technicians deposited a measured quantity of water on output printed with each ink cartridge brand and allowed it to dry.

Only three brands passed Buyers Lab's waterfastness test: Canon OEM, Peach, and Stinky Ink. The remaining brands were all considered to be unusable inside or outside of a company, with the exception of the KMP brand, which was deemed to be acceptable for use within a company only.



Severe Defect Minor Defect Good

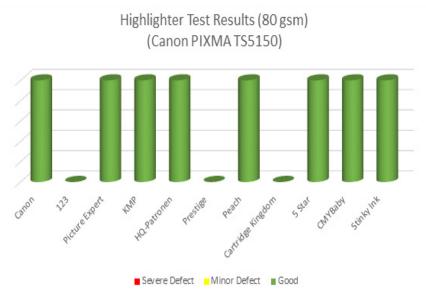
This graph shows how output from each cartridge brand fared in Buyers Lab's waterfastness test, with the quality of the image sample used denoted by a colour. A sample deemed unsuitable for use both outside and inside of a company would be coloured red, for example.

#### **HIGHLIGHTER TEST**

Highlighting printed output is a common practice, so it's important that the act of highlighting the printed part of a document doesn't cause the ink to smudge and make print illegible. Image quality samples from all of the ink cartridge brands tested passed Buyers Lab's highlighter test.







This graph shows how output from each cartridge brand fared in Buyers Lab's Highlighter test, with the quality of the image sample used denoted by a colour. A sample deemed unsuitable for use both outside and inside of a company would be coloured red, for example.

# Canon PIXMA TS3150 (80 gsm)

#### HALFTONES

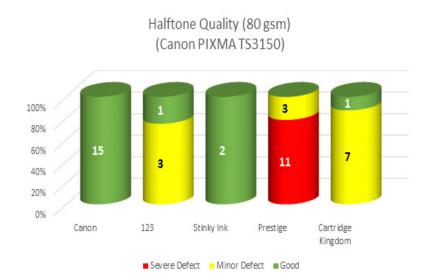
All of the 15 halftone samples printed with the Canon OEM ink were considered good enough to use inside or outside of an organization. Indeed, only one third-party cartridge brand produced an entire set of halftone quality samples that were deemed good, and that was the Stinky Ink brand.

100% of the Prestige brand's halftone quality samples were considered to have a minor or severe defect. Three of the Prestige brand's halftone quality samples were considered to have a minor defect, while a remarkable 11 samples—79% of its total output of halftone quality samples—were considered to have a severe defect and not good enough to use outside of a company or even to use informally within a company.

Please note that the Picture Expert brand did not produce a high enough yield to print any of the image quality targets.



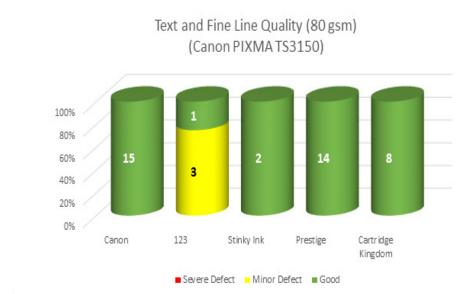




This graph shows the percentage of each cartridge brand's halftone image quality samples that were considered to have a minor defect, a severe defect, or be good. Each grade is indicated by a colour, such as yellow, which represents a minor defect. As an example, 100% of the Canon OEM brand's image quality samples were deemed to be good, so 100% of the Canon OEM brand's cylinder is coloured green. The graph also shows the number of image quality samples of each grade (the Canon OEM brand produced 15 image quality samples, for example, while the Prestige brand produced 14).

#### **TEXT AND FINE LINES (80 GSM)**

The quality of text and fine lines of all ink cartridge brands was considered good with the exception of the 123-branded cartridges. Only one of the text quality samples was considered good, and that was produced at the start of testing, while its subsequent three text quality samples—75% of its total output—were deemed to have minor defects.



This graph shows the percentage of each cartridge brands' text and fine line image quality samples that were considered to have a minor defect, a severe defect, or be good. Each grade is indicated by a colour, such as yellow, which represents a minor defect. As an example, one of the 123 brand's image quality samples as deemed to be good, so 25% of its cylinder is coloured green, while 75% of its cylinder is coloured yellow because three of its image quality samples were deemed to have minor defects. The graph also shows the number of image quality samples of each grade (the Canon OEM brand produced 15 image quality samples, for example, while the Stinky Ink brand produced two).



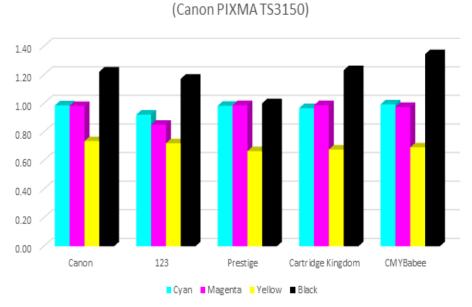


#### **OPTICAL DENSITY**

A higher optical density reading for black output indicates darker, deeper shades. All of the tested cartridge brands produced similar average densities, though CMYBabee was the highest.

Average Print Densities					
Cartridge Brand	Cyan	Magenta	Yellow	Black	
Canon	0.99	0.98	0.74	1.22	
123	0.92	0.85	0.72	1.17	
Prestige	0.98	0.99	0.67	1.00	
Cartridge Kingdom	0.97	0.99	0.68	1.23	
CMYBabee	0.99	0.98	0.69	1.35	

The higher the number, the higher the density.



Average Densities (80 gsm)

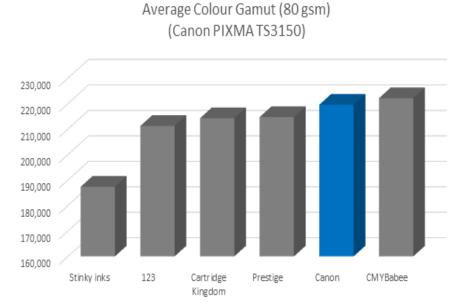
This graph shows the average optical densities of output from each cartridge brand. The higher the number, the higher the density.

#### **COLOUR GAMUT**

The Canon OEM brand's average colour gamut volume was the second-highest, just below the CMYBabee brand's average colour gamut volume. The lowest average colour gamut volume belongs to the Stinky Ink brand, which only produced two samples.



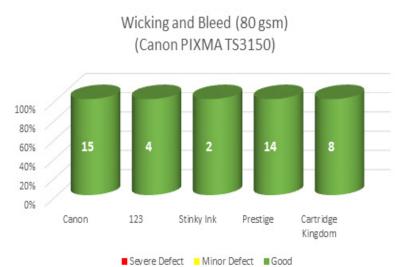




This graph shows the average colour gamut volume for each ink cartridge brand. Canon's average colour gamut is coloured blue. The Picture Expert cartridge brand's average colour gamut volume isn't included, as it only produced one reading at the very start of testing.

# WICKING TEST

Wicking can cause output to look sub-par and text to be messy or even illegible. It manifests itself as thin streaks of ink that emanate from the intended print location, perhaps as a line emanating from a text character. In Buyers Lab's testing, only one of the brands tested showed signs of wicking.



This graph shows the percentage of each cartridge brand's image quality samples that were considered to have a minor defect, a severe defect, or be good as a result of Buyers Lab's Wicking test. Each grade is indicated by a colour, such as yellow, which represents a minor defect.

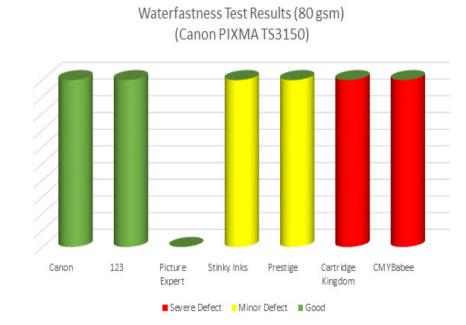




#### WATERFASTNESS TEST

Sometimes printed output will come in contact with moisture, so it's important for the end-user that exposure to that moisture doesn't have too much of an adverse effect on output. To test the impact of moisture on copy, Buyers Lab's lab technicians deposited a measured quantity of water on output printed with each ink cartridge brand and allowed it to dry.

Only two brands passed Buyers Lab's waterfastness test: Canon OEM and 123. The Cartridge kingdom and CMYBabee brands were considered to be unusable inside or outside of a company, while the Stinky Ink and Prestige brands were deemed to be acceptable for use within a company only.



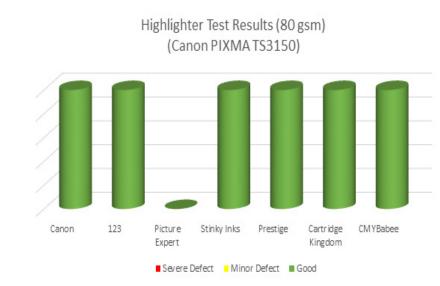
This graph shows how output from each cartridge brand fared in Buyers Lab's waterfastness test, with the quality of the image sample used denoted by a colour. A sample deemed unsuitable for use both outside and inside of a company would be coloured red, for example. Cartridge brands with no cylinder were not subjected to the waterfastness test.

#### **HIGHLIGHTER TEST**

Highlighting printed output is a common practice, so it's important that the act of highlighting the printed part of a document doesn't cause the ink to smudge and make print illegible. Image quality samples from all of the ink cartridge brands tested passed Buyers Lab's highlighter test.







This graph shows how output from each cartridge brand fared in Buyers Lab's Highlighter test, with the quality of the image sample used denoted by a colour. A sample deemed unsuitable for use both outside and inside of a company would be coloured red, for example. Cartridge brands with no cylinder were not subjected to the Highlighter test.

# Canon PIXMA TS5050 (80 gsm)

# HALFTONES

All of the 15 halftone samples printed with the Canon OEM ink were considered good enough to use inside or outside of an organization, while only two third-party cartridge brands produced halftone quality samples that were all considered good, KMP and Prestige. Of the other eight brands tested, six had at least one image quality sample that was deemed to have a severe defect that would prevent the output being distributed outside of a company or even used informally within an organization.

The Picture Expert-branded cartridges produced 13 halftone quality samples, and 92% of these were deemed to have defects, for example, while 64% of the Peach-branded cartridges' 11 halftone quality samples were considered to have defects.





Halftone Quality (80 gsm) (Canon PIXMA TS5050)



This graph shows the percentage of each cartridge brand's halftone image quality samples that were considered to have a minor defect, a severe defect, or be good. Each grade is indicated by a colour, such as yellow, which represents a minor defect. As an example, eight of the 123 brand's nine halftone quality samples were deemed to have minor defects, so 89% of the 123 brand's cylinder is coloured yellow. The graph also shows the number of image quality samples of each grade (the Canon OEM brand produced 15 image quality samples, for example, while the Prestige brand produced 11).

# TEXT AND FINE LINES (80 GSM)

The quality of text and fine lines of all ink cartridge brands, when printed on 80 gsm media, was considered good.



Text and Fine Line Quality (80 gsm) (Canon PIXMA TS5050)

This graph shows the percentage of each cartridge brand's text and fine line image quality samples that were considered to have a minor defect, a severe defect, or be good. Each grade is indicated by a colour, such as yellow, which represents a minor defect. As an example, all pipe of the 123 brand's image quality samples are deemed to be good, so 100% of its cylinder is coloured graph also.

all nine of the 123 brand's image quality samples are deemed to be good, so 100% of its cylinder is coloured green. The graph also shows the number of image quality samples of each grade (the Canon OEM brand produced 15 image quality samples, for example, while the Peach brand produced 11).



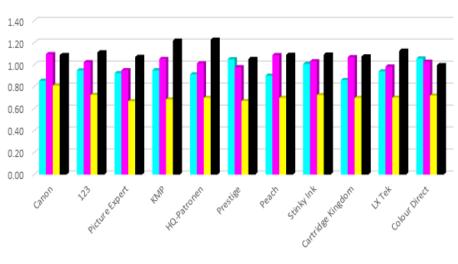


#### **OPTICAL DENSITY**

A higher optical density reading for black output indicates darker, deeper shades. The Canon OEM cartridges' average black density was comparable with the group, while the KMP and HQ-Patronen brands had the highest.

Average Print Densities					
Cartridge Brand	Cyan	Magenta	Yellow	Black	
Canon	0.86	1.10	0.81	1.09	
123	0.95	1.02	0.73	1.11	
Picture Expert	0.92	0.95	0.67	1.07	
KMP	0.95	1.05	0.68	1.22	
HQ-Patronen	0.91	1.01	0.70	1.23	
Prestige	1.05	0.98	0.67	1.05	
Peach	0.90	1.09	0.70	1.09	
Stinky Ink	1.01	1.03	0.72	1.09	
Cartridge Kingdom	0.86	1.07	0.70	1.08	
LX Tek	0.94	0.98	0.70	1.13	
Colour Direct	1.06	1.03	0.72	1.00	

The higher the number, the higher the density.



Average Densities (80 gsm) (Canon PIXMA TS5050)

Cyan Magenta Yellow Black

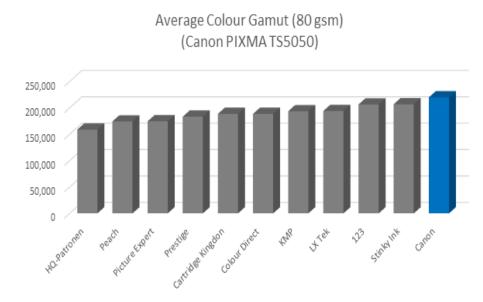
This graph shows the average optical densities of output from each cartridge brand. The higher the number, the higher the density.

# **COLOUR GAMUT**

The Canon OEM brand's average colour gamut volume is the highest. The lowest average colour gamut volume belongs to the HQ-Patronen brand, which was 28% lower than the Canon OEM ink's average colour gamut volume.



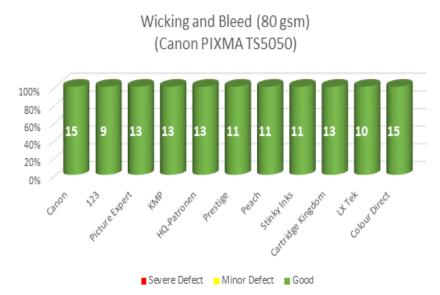




This graph shows the average colour gamut volume for each ink cartridge brand. Canon's average colour gamut is coloured blue.

#### WICKING TEST

Wicking can cause output to look sub-par and text to be messy or even illegible. It manifests itself as thin streaks of ink that emanate from the intended print location, perhaps as a line emanating from a text character. In Buyers Lab's testing, none of the brands tested showed signs of wicking.



This graph shows the percentage of each cartridge brand's image quality samples that were considered to have a minor defect, a severe defect, or be good as a result of Buyers Lab's Wicking test. Each grade is indicated by a colour, such as yellow, which represents a minor defect.

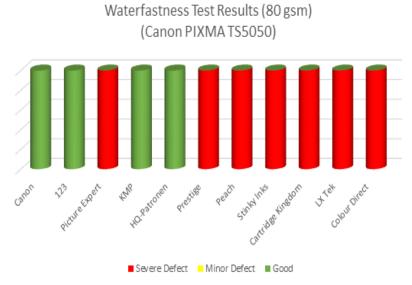




#### WATERFASTNESS TEST

Sometimes printed output will come in contact with moisture, so it's important for the end-user that exposure to that moisture doesn't have too much of an adverse effect on output. To test the impact of moisture on copy, Buyers Lab's lab technicians deposited a measured quantity of water on output printed with each ink cartridge brand and allowed it to dry.

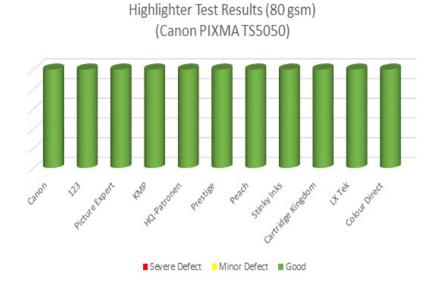
Of the 11 cartridge brands tested, only four of them (Canon OEM, 123, HQ-Patronen, and KMP) passed the waterfastness test, while the remaining 64% of cartridge brands failed the test.



This graph shows how output from each cartridge brand fared in Buyers Lab's waterfastness test, with the quality of the image sample used denoted by a colour. A sample deemed unsuitable for use both outside and inside of a company would be coloured red, for example.

#### **HIGHLIGHTER TEST**

Highlighting printed output is a common practice, so it's important that the act of highlighting the printed part of a document doesn't cause the ink to smudge and make print illegible. Image quality samples from all of the ink cartridge brands tested passed Buyers Lab's highlighter test.



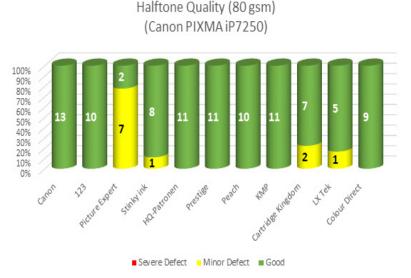
This graph shows how output from each cartridge brand fared in Buyers Lab's Highlighter test, with the quality of the image sample used denoted by a colour. A sample deemed unsuitable for use both outside and inside of a company would be coloured red, for example.



# Canon PIXMA iP7250 (80 gsm)

# **HALFTONES**

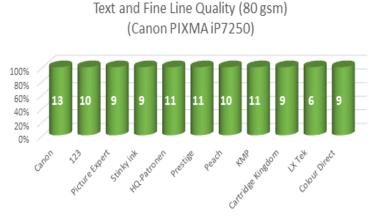
All of the 13 halftone samples printed with the Canon OEM ink were considered good enough to use inside or outside of an organization. Four of the third-party brands produced at least one image quality sample that was deemed to have a minor defect: Cartridge Kingdom, LX Tek, Picture Expert, and Stinky Ink. 78% of the Picture Expert's halftone quality samples were considered to have a minor defect, while 22% of the Cartridge Kingdom's, 17% of the LX Tek's, and 11% of the Stinky Ink's halftone quality samples are deemed to have minor defects.



This graph shows the percentage of each cartridge brand's halftone image quality samples that were considered to have a minor defect, a severe defect, or be good. Each grade is indicated by a colour, such as yellow, which represents a minor defect. As an example, seven of the Picture Expert brand's nine halftone quality samples were deemed to have minor defects, so 78% of the Picture Expert brand's cylinder is coloured yellow. The graph also shows the number of image quality samples of each grade (the Canon OEM brand produced 13 image quality samples, for example, while the Prestige brand produced 11).

# **TEXT AND FINE LINES (80 GSM)**

The quality of text and fine lines of all ink cartridge brands, when printed on 80 gsm media, was considered good.



Severe Defect Minor Defect Good

This graph shows the percentage of each cartridge brands' text and fine line image quality samples that were considered to have a minor defect, a severe defect, or be good. Each grade is indicated by a colour, such as yellow, which represents a minor defect. As an example, all 10 of the 123 brand's image quality samples are deemed to be good, so 100% of its cylinder is coloured green. The graph also shows the number of image guality samples of each grade (the Canon OEM brand produced 13 image guality samples, for example, while the Peach brand produced 10).



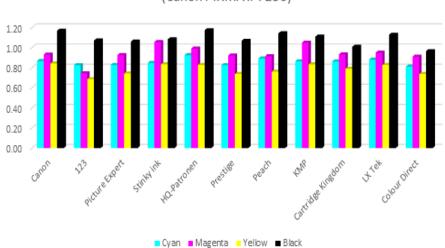


#### **OPTICAL DENSITY**

A higher optical density reading for black output indicates darker, deeper shades. The Canon OEM cartridges jointly produced the highest average black density.

Average Print Densities					
Cartridge Brand	Cyan	Magenta	Yellow	Black	
Canon	0.87	0.93	0.84	1.17	
123	0.83	0.75	0.69	1.07	
Picture Expert	0.83	0.93	0.74	1.06	
Stinky ink	0.85	1.06	0.84	1.08	
HQ-Patronen	0.93	0.99	0.83	1.17	
Prestige	0.83	0.92	0.74	1.07	
Peach	0.89	0.92	0.76	1.14	
KMP	0.86	1.05	0.83	1.11	
Cartridge Kingdom	0.86	0.93	0.79	1.01	
LX Tek	0.88	0.95	0.83	1.13	
Colour Direct	0.81	0.91	0.74	0.97	

The higher the number, the higher the density.



Average Densities (80 gsm) (Canon PIXMA iP7250)

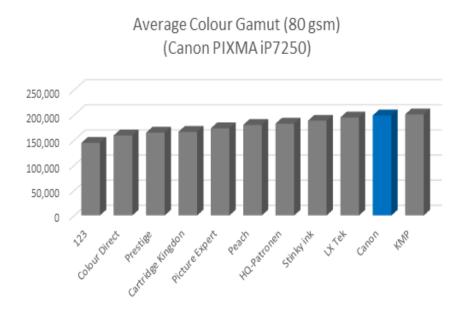
This graph shows the average optical densities of output from each cartridge brand. The higher the number, the higher the density.

# **COLOUR GAMUT**

The Canon OEM brand's average colour gamut volume is the second highest, just below the KMP brand's average colour gamut volume. The lowest average colour gamut volume belongs to the 123 brand, whose average colour gamut volume was 27% lower than the Canon OEM ink's average colour gamut volume.



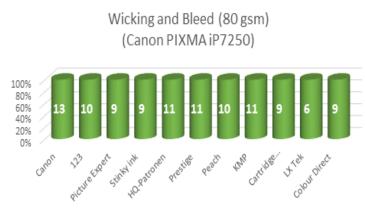




This graph shows the average colour gamut volume for each ink cartridge brand. Canon's average colour gamut is coloured blue.

#### WICKING TEST

Wicking can cause output to look sub-par and text to be messy or even illegible. It manifests itself as thin streaks of ink that emanate from the intended print location, perhaps as a line emanating from a text character. In Buyers Lab's testing, none of the brands tested showed signs of wicking.



Severe Defect Minor Defect Good

This graph shows the percentage of each cartridge brand's image quality samples that were considered to have a minor defect, a severe defect, or be good as a result of Buyers Lab's Wicking test. Each grade is indicated by a colour, such as yellow, which represents a minor defect.

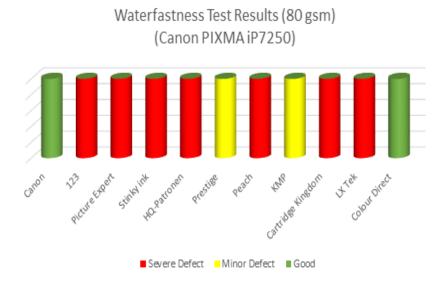




#### WATERFASTNESS TEST

Sometimes printed output will come in contact with moisture, so it's important for the end-user that exposure to that moisture doesn't have too much of an adverse effect on output. To test the impact of moisture on copy, Buyers Lab's lab technicians deposited a measured quantity of water on output printed with each ink cartridge brand and allowed it to dry.

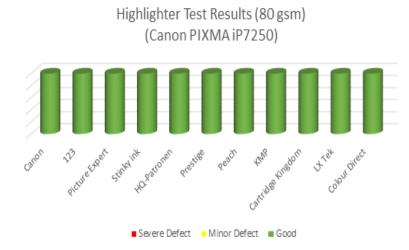
Of the 11 cartridge brands tested, only two of them (Canon OEM and Colour Direct) passed the waterfastness test, while the remaining 82% of cartridge brands failed the test. Two of the third-party brands—prestige and KMP—were deemed to have minor defects that resulted in test failure, while the rest were considered to have severe defects.



This graph shows how output from each cartridge brand fared in Buyers Lab's waterfastness test, with the quality of the image sample used denoted by a colour. A sample deemed unsuitable for use both outside and inside of a company would be coloured red, for example.

#### **HIGHLIGHTER TEST**

Highlighting printed output is a common practice, so it's important that the act of highlighting the printed part of a document doesn't cause the ink to smudge and make print illegible. Image quality samples from all of the ink cartridge brands tested passed Buyers Lab's highlighter test.



This graph shows how output from each cartridge brand fared in Buyers Lab's Highlighter test, with the quality of the image sample used denoted by a colour. A sample deemed unsuitable for use both outside and inside of a company would be coloured red, for example.



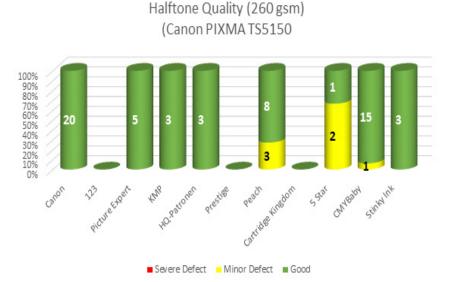


# Canon PIXMA TS5150 (260 gsm)

# HALFTONES (260 GSM)

All of the 20 halftone samples printed with the Canon OEM ink were considered good enough to use inside or outside of an organization. Only three brands produced output that was deemed to have minor defects: Peach, 5 Star, and CMYBabee. Only one (6%) of the CMYBabee brand's 16 halftone samples was deemed to have a minor defect, but 27% of the Peach brand's samples (three samples) and 67% of the 5 Star brand's samples (two samples) were considered only good enough for use within a company.

Please note that the 123, Cartridge Kingdom, and Prestige brands did not produce a high enough yield to print any of the image quality targets.



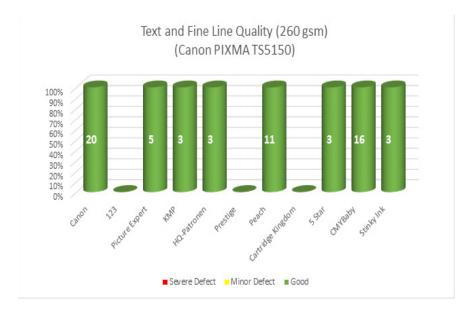
This graph shows the percentage of each cartridge brand's halftone image quality samples that were deemed to have a minor defect, a severe defect, or be good. Each grade is indicated by a colour, such as yellow, which represents a minor defect. As an example, 100% of the Canon OEM brand's image quality samples were deemed to be good, so 100% of the Canon OEM brand's cylinder is coloured green. The graph also shows the number of image quality samples of each grade (the Canon OEM brand produced 20 image quality samples, for example, while the KMP brand produced three).

# **TEXT AND FINE LINES (260 GSM)**

The quality of text and fine lines of all ink cartridge brands was considered good. However, please note that the 123, Cartridge Kingdom, and Prestige brands did not produce a high enough yield to print any of the image quality targets.







This graph shows the percentage of each cartridge brand's text and fine line image quality samples that were considered to have a minor defect, a severe defect, or be good. Each grade is indicated by a colour, such as yellow, which represents a minor defect. As an example, 100% of the Canon OEM brand's image quality samples were deemed to be good, so 100% of the Canon OEM brand's cylinder is coloured green. The graph also shows the number of image quality samples of each grade (the Canon OEM brand produced 20 image quality samples, for example, while the KMP brand produced three).

# **OPTICAL DENSITY (260 GSM)**

A higher optical density reading for black output indicates darker, deeper shades. When tested with 260 gsm media, the Canon OEM ink produced the highest average for black.

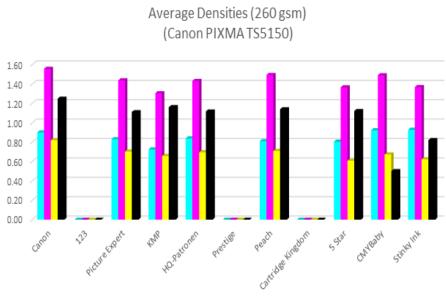
quality samples. Average Print Densities						
Canon	0.90	1.56	0.82	1.25		
123	-	-	-			
Picture Expert	0.83	1.44	0.70	1.11		
KMP	0.73	1.31	0.66	1.16		
HQ-Patronen	0.84	1.43	0.70	1.12		
Prestige	-	-	-			
Peach	0.81	1.49	0.71	1.14		
Cartridge Kingdom	_	-	-			
5 Star	0.81	1.37	0.61	1.12		
CMYBabee	0.92	1.49	0.67	0.50		
Stinky Ink	0.93	1.37	0.62	0.82		

Please note that the 123, Cartridge Kingdom, and Prestige brands didn't produce a high enough yield to print image quality samples.

The higher the number, the higher the density.





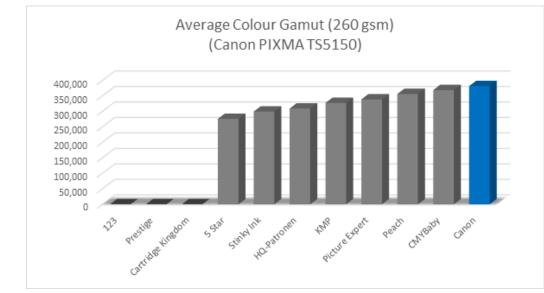


🗖 Cyan 📕 Magenta 📮 Yellow 🔳 Black

This graph shows the average optical densities of output from each cartridge brand. The higher the number, the higher the density.

#### **COLOUR GAMUT (260 GSM)**

When tested using 260 gsm media, the Canon OEM ink had the highest colour gamut volume of all brands tested. The 5 Star ink had the lowest average colour gamut volume (275,749 compared to 381,636), with the Canon OEM's colour gamut volume being 38% higher than the 5 Star's.



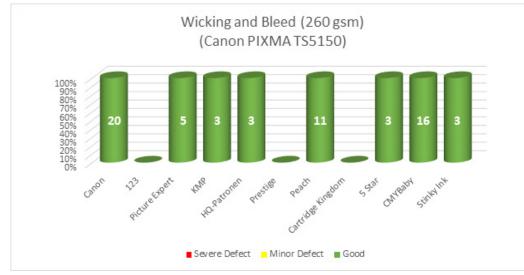
This graph shows the average colour gamut volume for each ink cartridge brand. Canon's average colour gamut is coloured blue.





#### WICKING TEST (260 GSM)

Wicking can cause output to look sub-par and text to be messy or even illegible. It manifests itself as thin streaks of ink that emanate from the intended print location, perhaps as a line emanating from a text character. In Buyers Lab's testing, none of the brands tested showed signs of wicking.

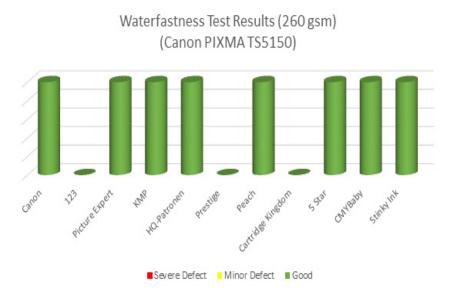


This graph shows the percentage of each cartridge brand's image quality samples that were considered to have a minor defect, a severe defect, or be good as a result of Buyers Lab's Wicking test. Each grade is indicated by a colour, such as yellow, which represents a minor defect.

#### WATERFASTNESS TEST (260 GSM)

Sometimes printed output will come in contact with moisture, so it's important for the end-user that exposure to that moisture doesn't have too much of an adverse effect on output. To test the impact of moisture on copy, Buyers Lab's lab technicians deposited a measured quantity of water on output printed with each ink cartridge brand and allowed it to dry.

When tested using 260 gsm media, all of the brands passed Buyers Lab's waterfastness test.



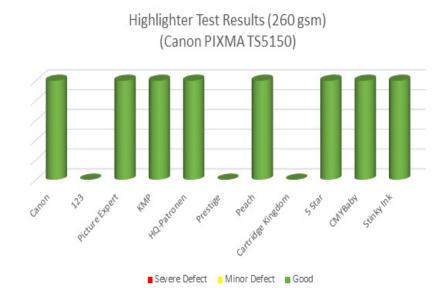
This graph shows how output from each cartridge brand fared in Buyers Lab's waterfastness test, with the quality of the image sample used denoted by a colour. A sample deemed unsuitable for use both outside and inside of a company would be coloured red, for example.





### **HIGHLIGHTER TEST (260 GSM)**

Highlighting printed output is a common practice, so it's important that the act of highlighting the printed part of a document doesn't cause the ink to smudge and make print illegible. Image quality samples from all of the ink cartridge brands tested passed Buyers Lab's highlighter test.

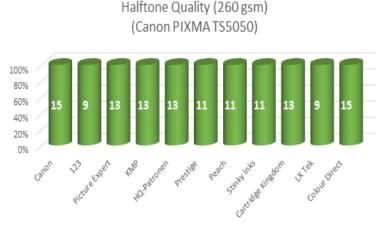


This graph shows how output from each cartridge brand fared in Buyers Lab's Highlighter test, with the quality of the image sample used denoted by a colour. A sample deemed unsuitable for use both outside and inside of a company would be coloured red, for example.

## Canon PIXMA TS5050 (260 gsm)

#### HALFTONES (260 GSM)

When printed on 260 gsm media, all of the image samples from all of the cartridge brands were considered good enough to use inside or outside of an organization.



#### Severe Defect Minor Defect Good

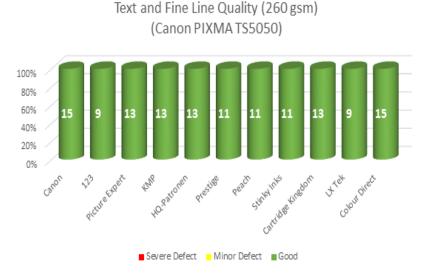
This graph shows the percentage of each cartridge brand's halftone image quality samples that were deemed to have a minor defect, a severe defect, or be good. Each grade is indicated by a colour, such as yellow, which represents a minor defect. As an example, 100% of the Canon OEM brand's image quality samples were deemed to be good, so 100% of the Canon OEM brand's cylinder is coloured green. The graph also shows the number of image quality samples of each grade (the Canon OEM brand produced 15 image quality samples, for example, while the 123-branded cartridges produced nine).





### **TEXT AND FINE LINES (260 GSM)**

The quality of text and fine lines of all ink cartridge brands was considered good when printed on 260 gsm media.



This graph shows the percentage of each cartridge brands' text and fine line image quality samples that are considered to have a minor defect, a severe defect, or be good. Each grade is indicated by a colour, such as yellow, which represents a minor defect. As an example, 100% of the Canon OEM brand's image quality samples were deemed to be good, so 100% of the Canon OEM brand's cylinder is coloured green. The graph also shows the number of image quality samples of each grade (the Canon OEM brand produced 15 image quality samples, for example, while the Peach brand produced eleven).

**OPTICAL DENSITY (260 GSM)** 

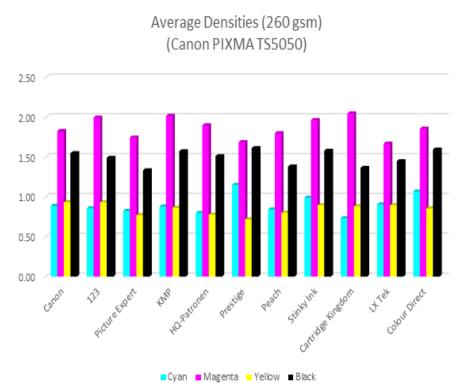
A higher optical density reading for black output indicates darker, deeper shades. When tested with 260 gsm media, the Canon OEM ink produced an average black density that is fourth highest and comparable overall.

Average Print Densities									
Cartridge Brand	Cyan	Magenta	Yellow	Black					
Canon	0.89	1.83	0.93	1.55					
123	0.86	2.00	0.93	1.49					
Picture Expert	0.83	1.75	0.77	1.34					
KMP	0.88	2.02	0.87	1.58					
HQ-Patronen	0.80	1.90	0.78	1.51					
Prestige	1.15	1.69	0.72	1.61					
Peach	0.84	1.80	0.80	1.38					
Stinky Ink	0.99	1.97	0.90	1.58					
Cartridge Kingdom	0.73	2.05	0.88	1.37					
LX Tek	0.91	1.67	0.90	1.45					
Colour Direct	1.07	1.86	0.86	1.60					

The higher the number, the higher the density.



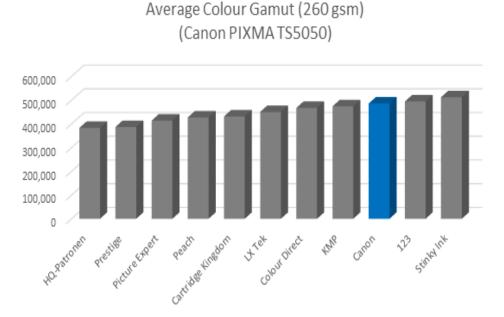




This graph shows the average optical densities of output from each cartridge brand. The higher the number, the higher the density.

## **COLOUR GAMUT (260 GSM)**

When tested using 260 gsm media, the Canon OEM ink had the third-highest colour gamut volume of all brands tested, with the 123 and Stinky Ink brands having a higher average colour gamut. The HQ-Patronen, Prestige, and Picture Expert brands had the three lowest average colour gamuts.



This graph shows the average colour gamut volume for each ink cartridge brand. Canon's average colour gamut is coloured blue.

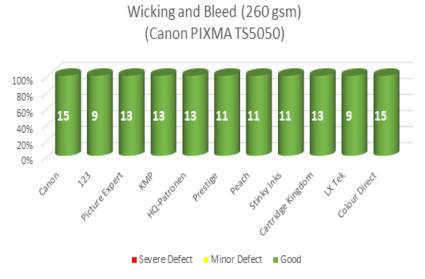




Average Colour Gamut Volumes							
HQ-Patronen	382,733						
Prestige	386,837						
Picture Expert	414,031						
Peach	427,217						
Cartridge Kingdom	431,057						
LX Tek	450,245						
Colour Direct	467,145						
КМР	473,677						
Canon	485,701						
123	494,349						
Stinky Ink	512,258						

#### WICKING TEST (260 GSM)

Wicking can cause output to look sub-par and text to be messy or even illegible. It manifests itself as thin streaks of ink that emanate from the intended print location, perhaps as a line emanating from a text character. In Buyers Lab's testing, none of the brands tested showed signs of wicking when output was printed on 260 gsm media.



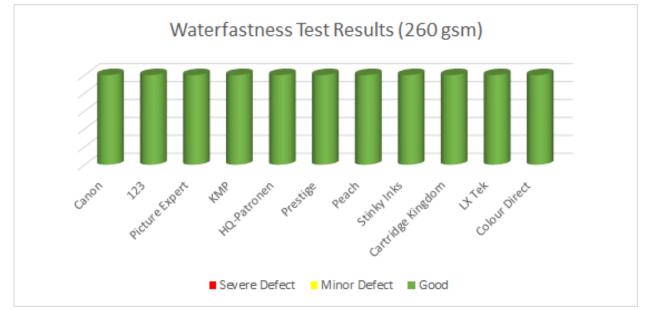
This graph shows the percentage of each cartridge brand's image quality samples that were considered to have a minor defect, a severe defect, or be good as a result of Buyers Lab's Wicking test. Each grade is indicated by a colour, such as yellow, which represents a minor defect.

#### WATERFASTNESS TEST (260 GSM)

Sometimes printed output will come in contact with moisture, so it's important for the end-user that exposure to that moisture doesn't have too much of an adverse effect on output. To test the impact of moisture on copy, Buyers Lab's lab technicians deposited a measured quantity of water on output printed with each ink cartridge brand and allowed it to dry.





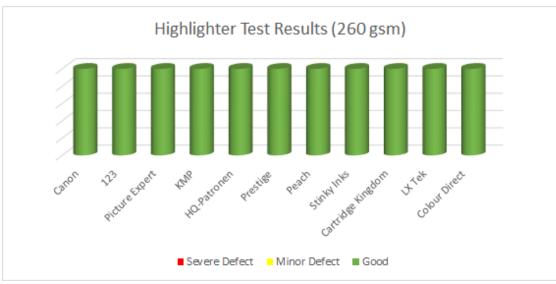


When tested using 260 gsm media, all of the brands passed Buyers Lab's waterfastness test.

This graph shows how output from each cartridge brand fared in Buyers Lab's waterfastness test, with the quality of the image sample used denoted by a colour. A sample deemed unsuitable for use both outside and inside of a company would be coloured red, for example.

#### **HIGHLIGHTER TEST (260 GSM)**

Highlighting printed output is a common practice, so it's important that the act of highlighting the printed part of a document doesn't cause the ink to smudge and make print illegible. Image quality samples from all of the ink cartridge brands tested passed Buyers Lab's highlighter test.



This graph shows how output from each cartridge brand fared in Buyers Lab's Highlighter test, with the quality of the image sample used denoted by a colour. A sample deemed unsuitable for use both outside and inside of a company would be coloured red, for example.

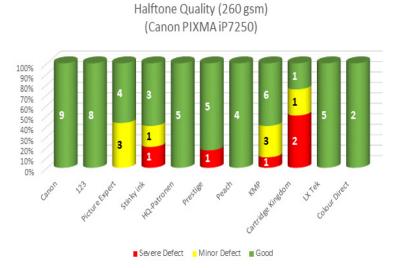




## Canon PIXMA iP7250 (260 gsm)

## HALFTONES (260 GSM)

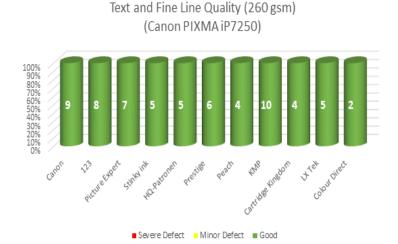
When printed on 260 gsm media, all of the Canon OEM's halftone quality samples were considered good enough for use within or outside an organization, while 50% of the other cartridge brands tested produced at least one halftone quality sample that was deemed to have a defect. The Stinky Ink, Prestige, KMP, and Cartridge Kingdom brands all produced at least one halftone quality sample that was deemed to have a severe defect that prevented its distribution outside of a company and its informal use within a company. Indeed, 75% of the Cartridge Kingdom brand's halftone quality samples were deemed to have a severe or minor defect.



This graph shows the percentage of each cartridge brand's halftone image quality samples that are deemed to have a minor defect, a severe defect or to be good. Each grade is indicated by a colour, such as yellow, which represents a minor defect. As an example, two of the Cartridge Kingdom brand's four halftone image quality samples were deemed to be have a severe defect, so 50% of the Cartridge Kingdom brand's cylinder is coloured red. The graph also shows the number of image quality samples of each grade (the Canon OEM brand produced nine image quality samples, for example, while the Colour Direct-branded cartridges produced two).

## **TEXT AND FINE LINES (260 GSM)**

The quality of text and fine lines of all ink cartridge brands was considered good when printed on 260 gsm media.



This graph shows the percentage of each cartridge brand's text and fine line image quality samples that are considered to have a minor defect, a severe defect, or be good. Each grade is indicated by a colour, such as yellow, which represents a minor defect. As an example, 100% of the Canon OEM brand's image quality samples were deemed to be good, so 100% of the Canon OEM brand's cylinder is coloured green. The graph also shows the number of image quality samples of each grade (the Canon OEM brand produced nine image quality samples, for example, while the Peach brand produced four).



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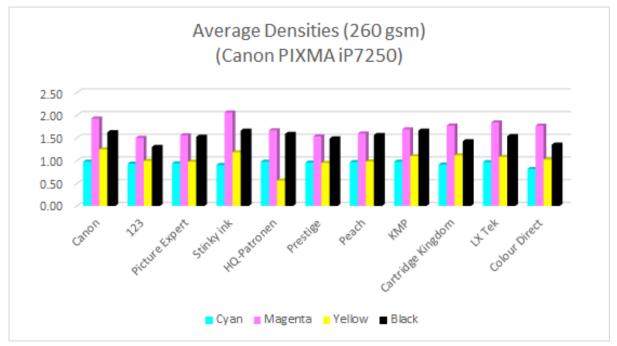


#### **OPTICAL DENSITY (260 GSM)**

A higher optical density reading for black output indicates darker, deeper shades. When tested with 260 gsm media, the Canon OEM ink produced the third-highest density for black output.

Average Print Densities									
Cartridge Brand	Cyan	Magenta	Yellow	Black					
Canon	0.98	1.93	1.25	1.63					
123	0.93	1.50	0.99	1.30					
Picture Expert	0.94	1.56	0.98	1.53					
Stinky ink	0.90	2.06	1.18	1.66					
HQ-Patronen	0.98	1.67	0.56	1.59					
Prestige	0.96	1.53	0.95	1.49					
Peach	0.97	1.60	0.98	1.56					
КМР	0.98	1.69	1.10	1.66					
Cartridge Kingdom	0.91	1.77	1.12	1.43					
LX Tek	0.97	1.84	1.08	1.54					
Colour Direct	0.82	1.77	1.02	1.35					

The higher the number, the higher the density.



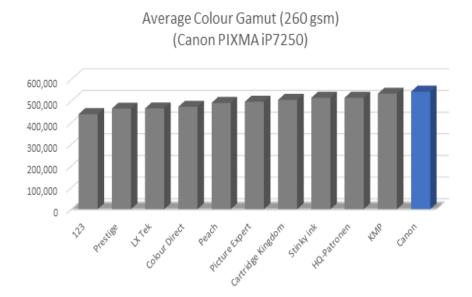
This graph shows the average optical densities of output from each cartridge brand. The higher the number, the higher the density.





## **COLOUR GAMUT (260 GSM)**

When tested using 260 gsm media, the Canon OEM ink had the highest average colour gamut volume of all brands tested. The 123, Prestige, and LX Tek brands had the lowest average colour gamuts, while the KMP brand had the closest average colour gamut to Canon.



This graph shows the average colour gamut volume for each ink cartridge brand. Canon's average colour gamut is coloured blue.

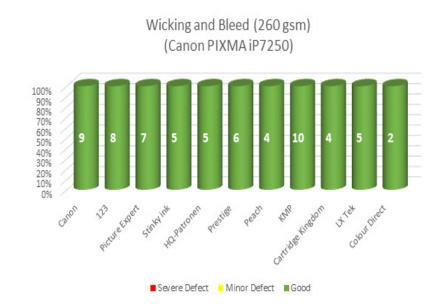
Average Colour Gamut Volumes							
123	439,035						
Prestige	464,497						
LX Tek	465,460						
Colour Direct	472,718						
Peach	490,998						
Picture Expert	496,104						
Cartridge Kingdom	504,696						
Stinky ink	514,696						
HQ-Patronen	514,700						
КМР	533,266						
Canon	542,610						

#### WICKING TEST (260 GSM)

Wicking can cause output to look sub-par and text to be messy or even illegible. It manifests itself as thin streaks of ink that emanate from the intended print location, perhaps as a line emanating from a text character. In Buyers Lab's testing, none of the brands tested showed signs of wicking when output was printed on 260 gsm media.





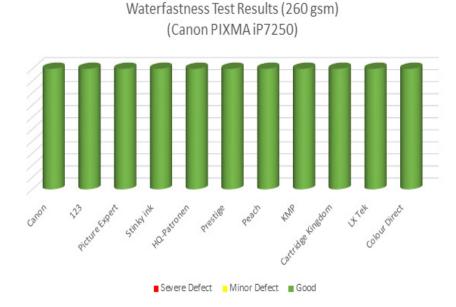


This graph shows the percentage of each cartridge brand's image quality samples that were considered to have a minor defect, a severe defect, or be good as a result of Buyers Lab's Wicking test. Each grade is indicated by a colour, such as yellow, which represents a minor defect.

## WATERFASTNESS TEST (260 GSM)

Sometimes printed output will come in contact with moisture, so it's important for the end-user that exposure to that moisture doesn't have too much of an adverse effect on output. To test the impact of moisture on copy, Buyers Lab's lab technicians deposited a measured quantity of water on output printed with each ink cartridge brand and allowed it to dry.

When tested using 260 gsm media, all of the brands passed Buyers Lab's waterfastness test.



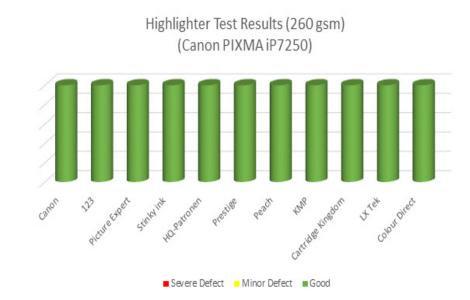
This graph shows how output from each cartridge brand fared in Buyers Lab's waterfastness test, with the quality of the image sample used denoted by a colour. A sample deemed unsuitable for use both outside and inside of a company would be coloured red, for example.





#### **HIGHLIGHTER TEST (260 GSM)**

Highlighting printed output is a common practice, so it's important that the act of highlighting the printed part of document doesn't cause the ink to smudge and make print illegible. Image quality samples from all of the ink cartridge brands tested passed Buyers Lab's highlighter test.



This graph shows how output from each cartridge brand fared in Buyers Lab's Highlighter test, with the quality of the image sample used denoted by a colour. A sample deemed unsuitable for use both outside and inside of a company would be coloured red, for example.

# **Supporting Test Data**

## Ink Yield Data (fully exhausted ink cartridge results only)

### **CANON PIXMA TS5150**

	Canon OEM							
			СМҮ					
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions		
Α	49.99	34.06	15.93	0	460	460		
В	49.42	34.44	14.98	460	766	306		
С	49.49	34.21	15.28	766	1,246	480		
D	49.55	34.75	14.80	1,246	1,573	327		
E	49.59	34.47	15.12	1,573	2,035	462		
F	49.53	34.35	15.18	2,035	2,482	447		
G	49.53	34.13	15.40	2,482	3,220	738		
н	49.63	34.36	15.27	3,220	3,725	505		
1	49.53	34.66	14.87	3,725	3,985	260		
J	49.49	34.38	15.11	3,985	4,315	330		





			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	49.99	28.89	21.10	0	481	481
В	50.21	31.67	18.54	481	1,246	765
С	50.27	29.20	21.07	1,246	1,917	671
D	50.20	29.04	21.16	1,917	2,527	610
E	50.00	28.90	21.10	2,527	3,171	644
F	49.90	28.85	21.14	3,171	3,868	497
G	50.12	29.15	20.97	3,868	4,565	697
н	50.13	30.39	19.74	4,565	5,208	643
1	N/A	N/A	N/A	N/A	N/A	N/A
J	N/A	N/A	N/A	N/A	N/A	N/A

			123			
			СМҮ			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	50.90	50.36	0.54	0	17	17
В	47.45	47.03	0.42	17	31	14
С	51.15	50.71	0.44	31	36	5
D	52.05	51.56	0.49	36	44	8
E	50.87	50.71	0.16	44	49	5
F	50.57	50.57	0.00	49	49	0
G	51.21	50.70	0.51	49	91	42
н	50.93	50.49	0.44	91	107	16
I	50.44	50.01	0.43	107	114	7
J	50.34	49.86	0.48	114	120	6

			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	52.15	51.62	0.53	0	17	17
В	52.09	52.09	0.00	17	17	0
С	51.80	51.27	0.53	17	32	15
D	52.27	51.78	0.49	32	42	10
E	51.48	50.69	0.79	42	107	65
F	51.32	51.32	0.00	107	107	0
G	51.14	50.28	0.86	107	116	9
н	52.37	51.57	0.80	116	129	13
I	49.72	49.72	0.00	129	129	0
J	50.66	50.66	0.00	129	129	0





	Picture Expert							
			CMY					
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions		
Α	50.54	46.7	3.84	0	150	150		
В	50.39	46.31	4.08	150	371	221		
С	50.55	50.09	0.46	371	388	17		
D	51.33	50.88	0.45	388	405	17		
E	50.30	46.32	3.98	405	561	156		
F	50.69	50.27	0.42	561	576	15		
G	50.46	46.86	3.60	576	591	15		
н	50.49	46.72	3.77	591	657	66		
1	50.53	50.03	0.50	657	674	17		
J	50.80	46.58	4.22	674	825	151		

			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	49.19	43.57	5.62	0	209	209
В	49.78	45.71	4.07	209	411	202
С	50.29	49.50	0.79	411	430	19
D	49.36	45.17	4.19	430	575	145
E	49.87	49.05	0.82	575	591	16
F	50.22	50.22	0.00	591	591	0
G	50.15	49.36	0.79	591	612	21
Н	49.13	48.34	0.79	612	618	6
I	49.86	49.03	0.83	618	636	18
J	51.45	41.75	9.70	636	941	305

			КМР			
			СМҮ			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	55.46	54.99	0.47	0	13	13
В	55.53	49.60	5.93	13	195	182
С	55.25	55.25	0.00	195	195	0
D	55.42	49.68	5.74	195	344	149
E	55.31	49.18	6.13	344	500	156
F	55.79	55.26	0.53	500	506	6
G	54.63	54.32	0.31	506	510	4
Н	55.25	54.92	0.33	510	514	4
I	55.18	54.18	1.00	514	527	13
J	54.78	54.37	0.41	527	544	17





			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	54.62	53.80	0.82	0	16	16
В	54.46	53.77	0.69	16	33	17
С	55.27	54.49	0.78	33	51	18
D	55.49	48.26	7.23	51	269	218
E	55.91	46.74	9.17	269	514	245
F	54.50	48.11	6.39	514	750	236
G	N/A	N/A	N/A	N/A	N/A	N/A
н	N/A	N/A	N/A	N/A	N/A	N/A
I	N/A	N/A	N/A	N/A	N/A	N/A
J	N/A	N/A	N/A	N/A	N/A	N/A

	HQ-Patronen								
			СМҮ						
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	50.01	45.97	4.04	0	157	157			
В	50.44	46.32	4.12	157	218	61			
С	51.27	49.81	1.46	218	234	16			
D	50.08	49.70	0.38	234	250	16			
E	50.80	46.99	3.81	250	297	47			
F	49.67	49.18	0.49	297	316	19			
G	49.62	45.57	4.05	316	470	154			
Н	50.50	46.86	3.64	470	513	43			
1	N/A	N/A	N/A	N/A	N/A	N/A			
J	N/A	N/A	N/A	N/A	N/A	N/A			

	BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	48.95	44.91	4.04	0	147	147			
В	48.64	44.62	4.02	147	199	52			
С	47.51	46.21	1.30	199	217	18			
D	48.42	47.62	0.80	217	234	17			
E	48.38	47.68	0.70	234	250	16			
F	48.13	47.35	0.78	250	254	4			
G	48.50	48.46	0.04	254	266	12			
Н	48.23	47.48	0.75	266	279	13			
I	47.49	46.77	0.72	279	297	18			
J	48.30	47.15	1.15	297	316	19			





			Prestige			
			CMY			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	N/A	N/A	N/A	N/A	N/A	N/A
В	N/A	N/A	N/A	N/A	N/A	N/A
С	N/A	N/A	N/A	N/A	N/A	N/A
D	N/A	N/A	N/A	N/A	N/A	N/A
E	N/A	N/A	N/A	N/A	N/A	N/A
F	N/A	N/A	N/A	N/A	N/A	N/A
G	N/A	N/A	N/A	N/A	N/A	N/A
Н	N/A	N/A	N/A	N/A	N/A	N/A
1	N/A	N/A	N/A	N/A	N/A	N/A
J	N/A	N/A	N/A	N/A	N/A	N/A

	BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	N/A	N/A	N/A	N/A	N/A	N/A			
В	N/A	N/A	N/A	N/A	N/A	N/A			
С	N/A	N/A	N/A	N/A	N/A	N/A			
D	N/A	N/A	N/A	N/A	N/A	N/A			
E	N/A	N/A	N/A	N/A	N/A	N/A			
F	N/A	N/A	N/A	N/A	N/A	N/A			
G	N/A	N/A	N/A	N/A	N/A	N/A			
Н	N/A	N/A	N/A	N/A	N/A	N/A			
1	N/A	N/A	N/A	N/A	N/A	N/A			
J	N/A	N/A	N/A	N/A	N/A	N/A			

	Peach								
			CMY						
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	56.55	56.55	0.00	0	0	0			
В	56.41	56.41	0.00	0	0	0			
C	55.94	41.09	14.85	0	273	273			
D	57.16	57.16	0.00	273	273	0			
E	57.18	41.39	15.79	273	771	498			
F	56.65	40.56	16.09	771	1,185	414			
G	56.91	40.59	16.32	1,185	1,395	210			
н	56.88	56.88	0.00	1,395	1,395	0			
I	46.88	40.81	6.07	1,395	1,864	469			
J	56.75	56.75	0.00	1,864	1,864	0			





	BLACK							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions		
Α	52.92	30.01	22.91	0	596	596		
В	54.56	31.44	23.12	596	1,347	751		
С	52.39	29.82	22.57	1,347	1,927	580		
D	55.36	33.03	22.33	1,927	2,711	784		
E	51.57	51.57	0.00	2,711	2,711	0		
F	52.83	52.83	0.00	2,711	2,711	0		
G	52.41	52.41	0.00	2,711	2,711	0		
н	N/A	N/A	N/A	N/A	N/A	N/A		
1	N/A	N/A	N/A	N/A	N/A	N/A		
J	N/A	N/A	N/A	N/A	N/A	N/A		

		C	artridge Kingdo	m		
			СМҮ			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	43.85	N/A	N/A	N/A	N/A	N/A
В	N/A	N/A	N/A	N/A	N/A	N/A
С	N/A	N/A	N/A	N/A	N/A	N/A
D	N/A	N/A	N/A	N/A	N/A	N/A
E	N/A	N/A	N/A	N/A	N/A	N/A
F	N/A	N/A	N/A	N/A	N/A	N/A
G	N/A	N/A	N/A	N/A	N/A	N/A
н	N/A	N/A	N/A	N/A	N/A	N/A
1	N/A	N/A	N/A	N/A	N/A	N/A
J	N/A	N/A	N/A	N/A	N/A	N/A

	BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	47.81	47.81	0.00	0	0	0			
В	47.57	47.57	0.00	0	0	0			
С	47.98	47.98	0.00	0	0	0			
D	47.67	47.67	0.00	0	0	0			
E	47.88	47.88	0.00	0	0	0			
F	45.85	45.85	0.00	0	0	0			
G	46.21	46.21	0.00	0	0	0			
Н	49.12	49.12	0.00	0	0	0			
1	45.12	45.12	0.00	0	0	0			
J	46.43	46.43	0.00	0	0	0			





	Cartridge Kingdom								
			СМҮ						
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	52.25	52.25	0.00	0	0	0			
В	52.14	52.14	0.00	0	0	0			
С	50.40	50.40	0.00	0	0	0			
D	52.18	50.74	1.44	0	16	16			
E	51.49	43.48	8.01	16	295	279			
F	50.06	49.37	0.69	295	299	4			
G	51.31	47.46	3.85	299	373	74			
Н	51.30	50.90	0.40	373	388	15			
I	50.55	50.12	0.43	388	404	16			
J	50.54	46.36	4.18	404	640	236			

	BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	50.42	49.62	0.80	0	16	16			
В	50.02	49.22	0.80	16	35	19			
С	50.59	49.84	0.75	35	53	18			
D	47.93	47.22	0.71	53	72	19			
E	45.05	45.05	0.00	72	72	0			
F	43.73	43.01	0.72	72	90	18			
G	48.53	41.46	7.07	90	344	254			
Н	50.29	48.52	1.77	344	362	18			
1	49.47	49.47	0.00	362	362	0			
J	49.51	48.75	0.76	362	382	20			

	CMYBabee								
			СМҮ						
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	44.25	33.22	11.03	0	306	306			
В	49.61	37.10	12.51	306	680	374			
С	55.06	38.62	16.44	680	1,213	533			
D	55.88	39.25	16.63	1,213	1,669	456			
E	51.56	36.27	15.29	1,669	2,070	401			
F	49.08	36.17	12.91	2,070	2,506	436			
G	49.14	36.47	12.67	2,506	2,750	244			
Н	48.42	36.91	11.51	2,750	3,024	274			
I	48.52	36.69	11.83	3,024	3,277	253			
J	48.93	37.35	11.58	3,277	3,640	363			





BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions		
Α	46.96	37.12	9.84	0	306	306		
В	44.13	33.15	10.98	306	669	363		
С	47.04	31.11	15.93	669	1,270	601		
D	47.65	31.96	15.69	1,270	1,810	540		
E	46.63	39.77	6.86	1,810	2,070	260		
F	49.17	34.29	14.88	2,070	2,533	463		
G	46.68	46.68	0.00	2,533	2,533	0		
н	47.87	34.29	13.58	2,533	2,939	406		
1	43.83	32.72	11.11	2,939	3,280	341		
J	46.52	33.61	12.91	3,280	3,758	478		

			Stinky Ink			
			CMY			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	51.27	50.82	0.45	0	15	15
В	51.22	50.80	0.42	15	31	16
С	51.76	51.76	0.00	31	31	0
D	50.47	46.29	4.18	31	100	69
E	51.34	50.84	0.50	100	117	17
F	51.57	47.42	4.15	117	260	143
G	52.70	48.74	3.96	260	307	47
Н	51.52	47.21	4.31	307	442	135
I	52.98	52.98	0.00	442	442	0
J	52.60	52.21	0.39	442	446	4

			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	49.07	48.25	0.82	0	24	24
В	49.04	48.23	0.81	24	42	18
С	48.65	47.86	0.79	42	60	18
D	48.80	48.03	0.77	60	78	18
E	48.44	39.73	8.71	78	303	225
F	48.41	41.17	7.24	303	558	255
G	N/A	N/A	N/A	N/A	N/A	N/A
Н	N/A	N/A	N/A	N/A	N/A	N/A
1	N/A	N/A	N/A	N/A	N/A	N/A
J	N/A	N/A	N/A	N/A	N/A	N/A





## Canon PIXMA TS5050

			Canon OEM			
			CYAN			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	24.42	13.57	10.85	0	878	878
В	24.46	14.67	9.79	878	1,581	703
С	24.40	14.05	10.35	1,581	2,113	532
D	24.43	13.96	10.47	2,113	3,019	906
E	24.44	15.71	8.73	3,019	3,694	675
F	24.39	15.76	8.63	3,694	4,295	601
G	24.26	13.08	11.18	4,295	4,980	685
Н	24.42	13.16	11.26	4,980	5,941	961
1	24.40	15.39	9.01	5,941	6,488	547
J	24.36	13.24	11.12	6,488	7,392	904

			MAGENTA			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	24.43	13.19	11.24	0	878	878
В	24.35	13.17	11.18	878	1,581	703
С	24.40	13.37	11.03	1,581	2,113	532
D	24.40	13.34	11.06	2,113	3,019	906
E	23.34	15.10	8.24	3,019	3,694	675
F	24.39	15.70	8.60	3,694	4,295	601
G	24.32	12.81	11.51	4,295	4,980	685
Н	24.42	15.71	8.71	4,980	5,603	623
1	24.34	15.56	8.78	5,603	6,194	591
J	24.38	14.41	9.97	6,194	6,849	655

			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	24.38	13.19	11.19	0	878	878
В	24.40	14.00	10.4	878	1581	703
С	24.51	13.41	11.1	1581	2113	532
D	24.36	13.33	11.03	2113	3019	906
E	24.32	15.24	9.08	3019	3694	675
F	24.30	15.34	8.96	3694	4295	601
G	24.30	12.77	11.53	4295	4980	685
Н	24.42	15.36	9.06	4980	5941	961
I	24.41	12.94	11.47	5941	6488	547
J	24.47	15.30	9.17	6488	7392	904





			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	40.26	18.29	21.97	0	650	650
В	40.52	18.22	22.30	650	1,272	622
С	40.51	18.35	22.16	1,272	1,897	625
D	40.28	18.16	22.12	1,897	2,555	658
E	40.09	18.04	22.05	2,555	3,258	703
F	40.55	22.14	18.41	3,258	3,795	537
G	40.20	18.05	22.15	3,795	4,495	700
Н	40.18	21.73	18.45	4,495	5,018	523
1	40.28	20.45	19.83	5,018	5,603	585
J	40.25	20.17	20.08	5,603	6,194	591

PHOTO BLACK							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions	
Α	24.36	14.88	9.48	0	8,376	8,376	

			123			
			CYAN			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	23.58	14.80	8.78	0	944	944
В	23.24	14.56	8.68	944	1,444	500
С	23.41	23.41	0.00	1,444	1,444	0
D	22.23	13.91	8.32	1,444	1,879	435
E	23.35	14.85	8.50	1,879	2,357	478
F	23.24	14.64	8.60	2,357	3,083	726
G	23.23	16.53	6.70	3,083	3,615	532
Н	23.26	15.16	8.10	3,615	4,031	416
I	23.07	15.00	8.07	4,031	4,739	708
J	23.33	14.67	8.66	4,739	5,337	598

			MAGENTA			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	24.85	15.84	9.01	0	944	944
В	24.65	15.83	8.82	944	1,444	500
С	24.61	18.79	5.82	1,444	1,879	435
D	25.08	16.38	8.70	1,879	2,348	469
E	24.60	13.88	10.72	2,348	3,083	735
F	25.10	17.93	7.17	3,083	3,615	532





## Canon OEM Inks versus Third-Party "Compatible" Inks

G	24.86	16.14	8.72	3,615	4,031	416
н	24.44	15.63	8.81	4,031	4,739	708
1	24.70	15.85	8.85	4,739	4,739	0

			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	24.84	16.52	8.32	0	944	944
В	24.51	16.28	8.23	944	1,444	500
С	24.69	16.36	8.33	1,444	1,879	435
D	24.90	15.92	8.98	1,879	2,357	478
E	24.77	16.52	8.25	2,357	3,083	726
F	24.15	18.14	6.01	3,083	3,615	532
G	24.89	17.02	7.87	3,615	4,031	416
Н	24.25	16.44	7.81	4,031	4,739	708
I	24.62	16.00	8.62	4,739	5,337	598

			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	42.00	19.51	22.49	0	835	835
В	41.84	20.01	21.83	835	1,360	525
С	41.96	20.27	21.69	1,360	1,879	519
D	41.99	23.99	18.00	1,879	2,399	520
E	42.20	24.07	18.13	2,399	2,831	432
F	42.12	30.31	11.81	2,831	3,083	252
G	42.04	24.05	17.99	3,083	3,615	532
Н	42.00	19.64	22.36	3,615	4,031	416
1	42.14	24.27	17.87	4,031	4,563	532
J	42.14	24.01	18.13	4,563	4,999	436

PHOTO BLACK							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions	
Α	25.33	18.35	6.98	0	3,083	3,083	





	Picture Expert								
	CYAN								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	25.04	14.09	10.95	0	1,143	1,143			
В	24.61	16.59	8.02	1,143	1,783	640			
С	24.38	16.88	7.50	1,783	2,096	313			
D	25.08	15.19	9.89	2,096	2,857	761			
E	24.90	17.10	7.80	2,857	3,535	678			
F	24.59	16.71	7.88	3,535	4,385	850			
G	24.82	16.96	7.86	4,385	5,137	752			
Н	24.69	17.26	7.43	5,137	6,054	917			
1	24.63	16.98	7.65	6,054	6,706	652			
J	24.70	16.02	8.68	6,706	7,559	853			

	MAGENTA								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	24.58	12.69	11.89	0	1,143	1,143			
В	24.90	16.30	8.60	1,143	1,783	640			
С	23.02	15.01	8.01	1,783	2,071	288			
D	23.36	12.98	10.38	2,071	2,857	786			
E	25.29	16.59	8.70	2,857	3,535	678			
F	23.80	15.06	8.74	3,535	4,385	850			
G	24.87	15.98	8.89	4,385	5,137	752			
Н	24.27	15.76	8.51	5,137	6,054	917			
1	24.65	15.64	9.01	6,054	6,706	652			
J	24.63	16.49	8.14	6,706	7,368	662			

			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	24.32	13.07	11.25	0	1,143	1,143
В	24.42	16.09	8.33	1,143	1,783	640
С	24.41	16.36	8.05	1,783	2,096	313
D	24.17	13.44	10.73	2,096	2,857	761
E	24.46	16.28	8.18	2,857	3,535	678
F	24.22	15.84	8.38	3,535	4,385	850
G	24.26	15.88	8.38	4,385	5,137	752
Н	24.48	16.34	8.14	5,137	6,054	917
I	24.49	15.82	8.67	6,054	6,706	652
J	24.47	16.20	8.27	6,706	7,383	677





	BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	39.83	19.63	20.20	0	608	608			
В	40.18	19.32	20.86	608	1,225	617			
С	40.50	20.48	20.02	1,225	1,826	601			
D	40.12	21.25	18.87	1,826	2,071	245			
E	40.86	22.46	18.40	2,071	2,514	443			
F	40.04	17.88	22.16	2,514	3,216	702			
G	40.35	18.84	21.51	3,216	4,017	801			
Н	40.39	20.11	20.28	4,017	4,662	645			
1	40.20	18.89	21.31	4,662	5,224	562			
J	39.87	19.01	20.86	5,224	6,215	991			

PHOTO BLACK							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions	
Α	24.85	15.94	8.91	0	5,254	5,254	

			КМР						
	CYAN								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	24.79	13.67	11.12	0	1,084	1,084			
В	24.96	16.29	8.67	1,084	1,782	698			
С	24.39	15.84	8.55	1,782	2,258	476			
D	24.75	13.82	10.93	2,258	3,171	913			
E	25.12	14.36	10.76	3,171	4,058	887			
F	24.15	12.26	11.89	4,058	4,786	728			
G	24.56	13.40	11.16	4,786	5,677	891			
Н	24.61	16.05	8.56	5,677	6,526	849			
I	24.76	16.81	7.95	6,526	7,147	621			

			MAGENTA			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	24.24	12.52	11.72	0	1,084	1,084
В	24.62	15.38	9.24	1,084	1,782	698
С	24.39	15.69	8.70	1,782	2,231	449
D	23.96	12.82	11.14	2,231	3,171	940
E	23.96	12.93	11.03	3,171	4,058	887
F	24.67	15.95	8.72	4,058	4,503	445
G	24.68	12.77	11.91	4,503	5,402	899
Н	24.61	15.52	9.09	5,402	6,062	660
1	24.61	15.91	8.70	6,062	6,842	780
J	24.50	14.50	10.00	6,842	7,585	743



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			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	24.61	13.16	11.45	0	1,084	1,084
В	24.73	15.38	9.35	1,084	1,782	698
С	24.39	15.34	9.05	1,782	2,258	476
D	24.75	13.14	11.61	2,258	3,171	913
E	24.14	13.28	10.86	3,171	4,058	887
F	24.20	12.20	12.00	4,058	4,786	728
G	24.08	12.56	11.52	4,786	5,677	891
Н	24.62	15.93	8.69	5,677	6,526	849
I	24.23	15.44	8.79	6,526	7,124	598

	BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	42.98	26.63	16.35	0	547	547			
В	42.80	18.55	24.25	547	1,311	764			
С	42.88	18.38	24.50	1,311	1,990	679			
D	41.43	18.15	23.28	1,990	2,727	737			
E	42.68	18.21	24.47	2,727	3,464	737			
F	43.06	18.57	24.49	3,464	4,072	608			
G	43.06	20.28	22.78	4,072	4,786	714			
Н	42.37	22.51	19.86	4,786	5,402	616			
I	42.97	20.97	22.00	5,402	6,062	660			
J	42.97	25.91	17.06	6,062	6,842	780			

PHOTO BLACK							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions	
Α	24.57	17.08	7.49	0	5,677	5,677	

	HQ-Patronen								
CYAN									
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	21.80	12.76	9.04	0	1,008	1,008			
В	21.92	15.01	6.91	1,008	1,599	591			
С	22.06	15.20	6.86	1,599	1,973	374			
D	21.93	15.00	6.93	1,973	2,650	677			
E	21.84	13.07	8.77	2,650	3,566	916			
F	21.92	11.84	10.08	3,566	4,541	975			
G	21.78	15.14	6.64	4,541	5,242	701			
Н	21.90	15.38	6.52	5,242	6,003	761			
1	22.08	15.84	6.24	6,003	6,578	575			



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	MAGENTA								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	21.91	12.18	9.73	0	1,008	1,008			
В	22.73	15.13	7.60	1,008	1,572	564			
С	22.07	14.28	7.79	1,572	1,973	401			
D	21.97	14.92	7.05	1,973	2,650	677			
Е	22.09	15.14	6.95	2,650	3,255	605			
F	21.97	15.04	6.93	3,255	3,867	612			
G	22.01	14.45	7.56	3,867	4,541	674			
н	21.95	14.41	7.54	4,541	5,242	701			
1	21.72	14.96	6.76	5,242	5,992	750			
J	22.00	14.77	7.23	5,992	6,578	586			

	YELLOW								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
А	21.97	12.17	9.80	0	1,008	1,008			
В	22.16	14.37	7.79	1,008	1,599	591			
С	22.07	14.28	7.79	1,599	1,973	374			
D	21.97	14.92	7.05	1,973	2,650	677			
E	22.09	15.14	6.95	2,650	3,255	605			
F	21.67	14.20	7.47	3,255	4,140	885			
G	21.98	14.39	7.59	4,140	4,711	571			
н	22.12	11.97	10.15	4,711	5,827	1,116			
l	21.77	14.03	7.74	5,827	6,508	681			

			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	37.50	17.80	19.70	0	581	581
В	36.98	17.68	19.30	581	1,090	509
С	37.07	19.51	17.56	1,090	1,599	509
D	37.23	17.92	19.31	1,599	1,939	340
E	36.76	19.65	17.11	1,939	2,349	410
F	37.05	20.15	16.90	2,349	2,941	592
G	37.26	17.96	19.30	2,941	3,566	625
н	37.22	17.94	19.28	3,566	4,140	574
1	37.19	17.78	19.41	4,140	4,740	600
J	37.50	20.29	17.21	4,740	5,242	502

PHOTO BLACK							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions	
Α	24.69	11.98	12.71	0	5,242	5,242	





	Prestige								
	CYAN								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	22.66	12.68	9.98	0	984	984			
В	22.50	13.12	9.38	984	1,684	700			
С	22.51	14.38	8.13	1,684	1,797	113			
D	22.38	13.31	9.07	1,797	2,722	925			
E	22.66	12.79	9.87	2,722	3,328	606			
F	22.51	15.90	6.61	3,328	3,944	616			
G	22.51	12.86	9.65	3,944	4,800	856			
Н	22.29	14.24	8.05	4,800	5,485	685			
I	22.04	14.46	7.58	5,485	6,061	576			
J	22.17	14.07	8.10	6,061	6,632	571			

	MAGENTA								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	23.83	12.65	11.18	0	984	984			
В	23.94	13.30	10.64	984	1,684	700			
С	24.20	15.69	8.51	1,684	1,794	110			
D	23.83	13.24	10.59	1,794	2,722	928			
E	23.68	15.01	8.67	2,722	3,328	606			
F	23.93	15.29	8.64	3,328	3,944	616			
G	24.04	13.25	10.79	3,944	4,800	856			
Н	23.59	14.54	9.05	4,800	5,488	688			
I	23.48	15.05	8.43	5,488	6,061	573			
J	23.58	14.55	9.03	6,061	6,632	571			

	YELLOW								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	22.66	12.68	9.98	0	984	984			
В	22.50	13.12	9.38	984	1,684	700			
С	22.51	14.38	8.13	1,684	1,797	113			
D	23.85	13.24	10.61	1,797	2,722	925			
Е	23.68	15.01	8.67	2,722	3,328	606			
F	23.84	15.09	8.75	3,328	3,944	616			
G	23.59	13.51	10.08	3,944	4,800	856			
Н	23.51	15.14	8.37	4,800	5,485	685			
1	23.43	15.55	7.88	5,485	6,061	576			
J	23.38	14.98	8.40	6,061	6,632	571			





	BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	40.74	19.66	21.08	0	649	649			
В	40.70	17.82	22.88	649	1,295	646			
С	40.51	18.22	22.29	1,295	1,569	274			
D	40.30	16.89	23.41	1,569	2,179	610			
E	40.41	17.54	22.87	2,179	2,972	793			
F	40.37	18.01	22.36	2,972	3,692	720			
G	40.63	17.63	23.00	3,692	4,300	608			
Н	40.45	17.28	23.17	4,300	5,042	742			
1	41.12	18.34	22.78	5,042	5,734	692			
J	40.56	17.76	22.80	5,734	6,364	630			

PHOTO BLACK							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions	
Α	22.41	13.69	8.72	0	5,042	5,042	

			Peach						
	CYAN								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	27.52	18.65	8.87	0	711	711			
В	27.11	18.72	8.39	711	1,307	596			
С	27.03	18.77	8.26	1,307	1,955	648			
D	27.40	19.02	8.38	1,955	2,721	766			
E	26.99	19.20	7.79	2,721	3,274	553			
F	27.21	18.89	8.32	3,274	3,983	709			
G	27.13	18.61	8.52	3,983	4,628	645			
Н	27.09	18.73	8.36	4,628	5,357	729			
l	27.10	18.84	8.26	5,357	6,218	861			

			MAGENTA			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	27.08	18.13	8.95	0	691	691
В	27.12	18.42	8.70	691	1,233	542
С	27.21	18.66	8.55	1,233	1,822	589
D	26.92	15.78	11.14	1,822	2,721	899
E	27.22	18.67	8.55	2,721	3,274	553
F	27.07	18.48	8.59	3,274	3,953	679
G	27.38	18.68	8.70	3,953	4,525	572
Н	26.83	18.14	8.69	4,525	5,279	754
1	27.18	18.24	8.94	5,279	5,999	720





			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	27.46	18.56	8.90	0	711	711
В	27.42	18.80	8.62	711	1,270	559
С	27.78	19.20	8.58	1,270	1,885	615
D	27.64	17.90	9.74	1,885	2,721	836
E	27.72	19.47	8.25	2,721	3,274	553
F	27.50	18.82	8.68	3,274	3,983	709
G	27.49	18.43	9.06	3,983	4,628	645
Н	26.30	17.51	8.79	4,628	5,357	729
I	27.54	18.89	8.65	5,357	6,218	861

	BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	40.90	19.79	21.11	0	826	826			
В	40.44	19.55	20.89	826	1,195	369			
С	40.40	22.90	17.50	1,195	1,720	525			
D	40.75	23.50	17.25	1,720	2,220	500			
E	40.41	23.61	16.80	2,220	2,741	521			
F	40.67	24.41	16.26	2,741	3,274	533			
G	40.41	20.47	19.94	3,274	3,953	679			
Н	40.57	24.33	16.24	3,953	4,449	496			
1	40.37	24.34	16.03	4,449	5,017	568			
J	40.52	23.94	16.58	5,017	5,675	658			

PHOTO BLACK							
Cartridge Set	Cartridge SetFull WeightEmpty WeightNet WeightTotal CounterTotal CounterTotal(grams)(grams)(grams)(grams)at Startat EndImpressions						
Α	27.18	17.62	9.56	0	5,357	5,357	

	Stinky Ink								
			CYAN						
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	24.15	15.90	8.25	0	1,027	1,027			
В	24.27	16.46	7.81	1,027	1,687	660			
С	23.94	15.18	8.76	1,687	2,186	499			
D	24.28	16.84	7.44	2,186	2,933	747			
E	23.94	15.24	8.70	2,933	3,577	644			
F	23.99	13.88	10.11	3,577	4,597	1,020			
G	23.83	16.23	7.60	4,597	5,121	524			
Н	24.09	13.69	10.40	5,121	6,016	895			





	MAGENTA								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	23.99	14.59	9.40	0	1,027	1,027			
В	23.46	14.37	9.09	1,027	1,687	660			
С	23.77	13.81	9.96	1,687	2,186	499			
D	24.33	15.46	8.87	2,186	2,933	747			
E	24.03	13.86	10.17	2,933	3,577	644			
F	23.84	15.19	8.65	3,577	4,215	638			
G	23.32	13.41	9.91	4,215	5,005	790			
Н	23.48	14.70	8.78	5,005	5,586	581			

			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	24.16	15.63	8.53	0	1,027	1,027
В	23.50	15.49	8.01	1,027	1,687	660
С	23.96	14.48	9.48	1,687	2,186	499
D	23.94	16.00	7.94	2,186	2,933	747
E	24.28	14.79	9.49	2,933	3,577	644
F	23.75	13.44	10.31	3,577	4,597	1,020
G	23.56	18.17	5.39	4,597	5,005	408
Н	23.76	16.04	7.72	5,005	5,586	581

	BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	39.46	17.66	21.80	0	720	720			
В	39.31	21.35	17.96	720	1,460	740			
С	39.57	21.50	18.07	1,460	1,806	346			
D	39.63	21.73	17.90	1,806	2,334	528			
E	39.59	21.47	18.12	2,334	2,884	550			
F	39.24	17.69	21.55	2,884	3,528	644			
G	39.77	21.83	17.94	3,528	4,039	511			
Н	39.30	21.01	18.29	4,039	4,597	558			
1	39.73	21.52	18.21	4,597	5,103	506			
J	39.45	23.50	15.95	5,103	5,586	483			

PHOTO BLACK							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions	
Α	24.32	15.66	8.66	0	5,586	5,586	





		Ca	rtridge Kingd	om		
			CYAN			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	23.58	13.18	10.40	0	851	851
В	23.46	14.70	8.76	851	1,556	705
С	23.41	14.91	8.50	1,556	2,277	721
D	23.37	14.23	9.14	2,277	2,902	625
E	23.51	15.63	7.88	2,902	3,592	690
F	23.63	14.18	9.45	3,592	4,435	843
G	23.29	14.62	8.67	4,435	4,998	563
Н	23.61	13.75	9.86	4,998	5,817	819
1	23.89	12.86	11.03	5,817	6,635	818

			MAGENTA			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	23.53	12.17	11.36	0	851	851
В	23.30	14.54	8.76	851	1,556	705
С	23.49	15.59	7.90	1,556	2,277	721
D	23.49	14.70	8.79	2,277	2,902	625
E	23.41	14.93	8.48	2,902	3,592	690
F	23.37	12.57	10.80	3,592	4,435	843
G	23.13	15.05	8.08	4,435	4,998	563
Н	23.26	15.24	8.02	4,998	5,502	504
I	23.18	13.58	9.60	5,502	6,163	661
J	23.38	15.16	8.22	6,163	6,660	497

	YELLOW								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	22.83	12.05	10.78	0	851	851			
В	23.13	14.23	8.90	851	1,556	705			
С	23.36	14.71	8.65	1,556	2,277	721			
D	23.62	14.25	9.37	2,277	2,902	625			
E	23.37	14.73	8.64	2,902	3,592	690			
F	23.35	12.92	10.43	3,592	4,435	843			
G	23.08	14.09	8.99	4,435	4,998	563			
Н	23.16	12.58	10.58	4,998	5,817	819			
I	23.18	11.74	11.44	5,817	6,635	818			





	BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	40.27	19.75	20.52	0	591	591			
В	39.71	22.16	17.55	591	1,056	465			
С	39.93	18.61	21.32	1,056	1,822	766			
D	40.23	21.23	19.00	1,822	2,427	605			
E	39.72	21.44	18.28	2,427	2,973	546			
F	39.91	21.83	18.08	2,973	3,488	515			
G	39.27	20.32	18.95	3,488	4,155	667			
Н	39.86	20.89	18.97	4,155	4,627	472			
1	39.68	18.95	20.73	4,627	5,236	609			
J	39.96	19.81	20.15	5,236	5,763	527			

PHOTO BLACK							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impres- sions	
Α	24.15	14.48	9.67	0	4,998	4,998	

			LX Tek			
			CYAN			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	23.30	14.57	8.73	0	810	810
В	22.81	14.32	8.49	810	1,369	559
C	22.87	14.48	8.39	1,369	2,021	652
D	23.24	14.90	8.34	2,021	2,737	716
E	23.34	15.04	8.30	2,737	3,397	660
F	22.79	14.90	7.89	3,397	3,953	556
G	23.10	16.84	6.26	3,953	4,371	418
Н	22.74	14.88	7.86	4,371	5,074	703
l	22.95	15.06	7.89	5,074	5,557	483

			MAGENTA			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	22.62	15.91	6.71	0	795	795
В	22.98	14.24	8.74	795	1,369	574
С	22.75	12.68	10.07	1,369	2,021	652





## Canon OEM Inks versus Third-Party "Compatible" Inks

D	22.77	13.82	8.95	2,021	2,737	716
Е	23.04	14.16	8.88	2,737	3,397	660
F	22.77	14.28	8.49	3,397	3,953	556
G	23.03	16.32	6.71	3,953	4,371	418
н	22.83	14.52	8.31	4,371	5,074	703
I	22.80	14.34	8.46	5,074	5,557	483

			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	23.44	14.86	8.58	0	810	810
В	22.75	14.00	8.75	810	1,369	559
С	22.86	13.58	9.28	1,369	2,021	652
D	22.72	14.25	8.47	2,021	2,737	716
E	23.17	14.78	8.39	2,737	3,397	660
F	22.81	14.63	8.18	3,397	3,953	556
G	22.95	16.64	6.31	3,953	4,571	618
Н	22.62	14.36	8.26	4,571	5,074	503
1	22.66	14.61	8.05	5,074	5,557	483

	BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	38.68	17.14	21.54	0	638	638			
В	39.34	18.11	21.23	638	1,214	576			
C	39.04	19.94	19.10	1,214	1,699	485			
D	38.81	19.54	19.27	1,699	2,219	520			
E	39.04	19.71	19.33	2,219	2,761	542			
F	39.07	19.67	19.40	2,761	3,278	517			
G	39.54	20.17	19.37	3,278	3,806	528			
н	39.08	18.20	20.88	3,806	4,571	765			
I	39.07	19.92	19.15	4,571	4,897	326			
J	38.97	19.15	19.82	4,897	5,365	468			

PHOTO BLACK							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions	
Α	23.20	16.62	6.58	0	3,953	3,953	





			Colour Direct	È		
			CYAN			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	22.27	12.84	9.43	0	784	784
В	22.70	13.44	9.26	784	1,495	711
С	22.58	13.53	9.05	1,495	2,249	754
D	22.68	14.14	8.54	2,249	3,061	812
E	22.65	14.30	8.35	3,061	3,735	674
F	22.24	12.44	9.80	3,735	4,588	853
G	22.25	22.25	0.00	4,588	4,588	0
Н	22.51	14.60	7.91	4,588	5,194	606
I	22.69	12.60	10.09	5,194	6,018	824
J	22.11	12.85	9.26	6,018	6,713	695

			MAGENTA			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	22.88	12.69	10.19	0	784	784
В	22.86	12.82	10.04	784	1,495	711
С	22.64	12.86	9.78	1,495	2,249	754
D	22.68	13.47	9.21	2,249	3,061	812
E	22.88	14.36	8.52	3,061	3,735	674
F	23.34	14.82	8.52	3,735	4,363	628
G	22.91	14.46	8.45	4,363	4,828	465
Н	22.70	12.26	10.44	4,828	5,462	634
I	22.70	13.71	8.99	5,462	6,113	651
J	22.80	15.83	6.97	6,113	6,713	600

			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	22.34	12.50	9.84	0	784	784
В	22.26	12.44	9.82	784	1,495	711
C	22.38	12.86	9.52	1,495	2,249	754
D	22.65	13.39	9.26	2,249	3,061	812
E	22.44	13.82	8.62	3,061	3,735	674
F	22.48	13.83	8.65	3,735	4,423	688
G	22.20	12.31	9.89	4,423	5,076	653
Н	22.45	16.46	5.99	5,076	5,462	386
I	22.12	13.52	8.60	5,462	6,113	651
J	22.25	15.11	7.14	6,113	6,713	600





			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	42.07	18.23	23.84	0	1,262	1,262
В	41.97	18.01	23.96	1,262	2,249	987
С	41.78	18.15	23.63	2,249	3,061	812
D	41.69	23.83	17.86	3,061	3,585	524
E	41.86	23.80	18.06	3,585	4,118	533
F	41.88	22.93	18.95	4,118	4,588	470
G	41.57	23.07	18.50	4,588	5,089	501
Н	41.53	24.13	17.40	5,089	5,462	373
1	41.72	22.38	19.34	5,462	6,018	556
J	41.85	18.04	23.81	6,018	6,708	690

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Cartridge SetFull Weight (grams)Empty Weight (grams)Net Weight (grams)Total Counter at StartTotal Counter at EndTotal Impressions							
Α	22.54	13.81	8.73	0	5,059	5,059	

## Canon PIXMA iP7250

	Canon OEM								
	CYAN								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	24.65	15.97	8.68	0	639	639			
В	24.65	15.69	8.96	639	1,175	536			
С	24.63	15.07	9.56	1,175	1,639	464			
D	24.44	14.36	10.08	1,639	2,376	737			
E	24.54	15.29	9.25	2,376	2,883	507			
F	24.65	15.89	8.76	2,883	3,401	518			
G	24.59	16.99	7.60	3,401	4,008	607			
н	24.63	16.99	7.64	4,008	4,670	662			
I	29.60	15.18	14.42	4,670	5,264	594			
J	24.70	15.48	9.22	5,264	6,152	888			





			MAGENTA			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	24.47	15.59	8.88	0	637	637
В	24.45	15.52	8.93	637	1,136	499
С	24.42	13.80	10.62	1,136	1,639	503
D	24.56	15.43	9.13	1,639	2,264	625
E	24.38	15.34	9.04	2,264	2,787	523
F	24.38	15.38	9.00	2,787	3,228	441
G	24.40	15.45	8.95	3,228	3,893	665
Н	24.34	15.32	9.02	3,893	4,555	662
1	24.32	15.34	8.98	4,555	5,138	583
J	24.40	15.55	8.85	5,138	5,514	376

			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	24.29	15.18	9.11	0	639	639
В	24.27	15.25	9.02	639	1,180	541
С	24.28	13.18	11.10	1,180	1,905	725
D	24.32	14.87	9.45	1,905	2,439	534
E	24.22	14.98	9.24	2,439	3,035	596
F	24.28	14.92	9.36	3,035	3,672	637
G	24.24	13.56	10.68	3,672	4,457	785
Н	24.31	13.94	10.37	4,457	5,138	681
I	24.29	15.12	9.17	5,138	5,719	581
J	24.27	14.67	9.60	5,719	6,412	693

			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	40.60	23.13	17.47	0	554	554
В	40.30	23.64	16.66	554	1,041	487
С	40.86	23.96	16.90	1,041	1,389	348
D	40.70	23.53	17.17	1,389	1,989	600
E	40.79	23.82	16.97	1,989	2,527	538
F	40.51	18.10	22.41	2,527	3,181	654
G	40.64	23.83	16.81	3,181	3,788	607
Н	40.55	23.56	16.99	3,788	4,345	557
1	40.55	23.32	17.23	4,345	4,865	520
J	40.54	23.15	17.39	4,865	5,280	415

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Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions		
Α	24.39	14.28	10.11	0	3,328	3,328		



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			123			
			CYAN			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	24.17	15.60	8.57	0	687	687
В	24.38	16.35	8.03	687	1,327	640
C	24.12	15.99	8.13	1,327	1,831	504
D	24.26	16.47	7.79	1,831	2,286	455
E	24.26	14.30	9.96	2,286	2,804	518
F	27.27	16.16	11.11	2,804	3,477	673
G	24.37	15.95	8.42	3,477	3,794	317
Н	29.52	16.62	12.90	3,794	4,236	442
I	24.10	15.83	8.27	4,236	4,995	759
J	24.59	16.58	8.01	4,995	5,720	725

			MAGENTA			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	23.62	16.56	7.06	0	566	566
В	23.67	13.03	10.64	566	1,327	761
С	23.76	15.19	8.57	1,327	1,831	504
D	23.62	14.25	9.37	1,831	2,228	397
E	23.60	14.67	8.93	2,228	2,804	576
F	23.73	16.63	7.10	2,804	3,284	480
G	23.70	17.64	6.06	3,284	3,605	321
Н	23.67	16.18	7.49	3,605	3,886	281
	23.65	14.36	9.29	3,886	4,475	589
J	23.71	15.58	8.13	4,475	5,222	747

			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	23.33	16.78	6.55	0	566	566
В	23.49	13.53	9.96	566	1,327	761
C	23.76	15.19	8.57	1,327	2,081	754
D	23.46	14.39	9.07	2,081	2,630	549
E	23.56	15.17	8.39	2,630	3,084	454
F	23.80	16.40	7.40	3,084	3,506	422
G	23.62	15.56	8.06	3,506	3,918	412
Н	23.91	14.99	8.92	3,918	4,558	640
1	23.52	15.44	8.08	4,558	5,358	800
J	23.47	14.43	9.04	5,358	5,898	540





			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	41.40	26.56	14.84	0	468	468
В	41.87	26.42	15.45	468	977	509
С	41.93	26.15	15.78	977	1,602	625
D	41.67	27.02	14.65	1,602	2,090	488
E	41.25	26.50	14.75	2,090	2,528	438
F	41.55	27.53	14.02	2,528	2,918	390
G	42.27	27.67	14.60	2,918	3,352	434
Н	41.62	23.63	17.99	3,352	3,794	442
1	41.92	26.90	15.02	3,794	4,224	430
J	41.65	25.51	16.14	4,224	4,765	541

PHOTO BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions		
Α	23.81	16.15	7.66	0	2,630	2,630		
В	23.98	16.11	7.87	2,630	4,236	1,606		

	Picture Expert							
			CYAN					
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions		
Α	23.49	12.36	11.13	0	647	647		
В	23.14	12.14	11.00	647	1,223	576		
С	23.16	11.85	11.31	1,223	1,816	593		
D	23.51	13.11	10.40	1,816	2,567	751		
E	22.64	13.68	8.96	2,567	3,263	696		
F	23.35	12.70	10.65	3,263	3,840	577		
G	23.15	12.51	10.64	3,840	4,357	517		
н	23.21	12.84	10.37	4,357	5,174	817		
1	23.15	13.95	9.20	5,174	5,789	615		

			MAGENTA			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	23.49	12.36	11.13	0	647	647
В	23.14	12.14	11.00	647	1,223	576
С	22.90	11.98	10.92	1,223	1,816	593
D	22.96	12.02	10.94	1,816	2,564	748





## Canon OEM Inks versus Third-Party "Compatible" Inks

E	22.93	12.18	10.75	2,564	3,265	701
F	23.05	13.08	9.97	3,265	3,840	575
G	23.27	13.83	9.44	3,840	4,357	517
н	23.00	13.48	9.52	4,357	4,967	610
I	22.84	13.43	9.41	4,967	5,577	610
J	23.22	22.21	1.01	5,577	5,751	174

			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	23.50	12.25	11.25	0	647	647
В	23.74	12.39	11.35	647	1,223	576
С	23.60	12.44	11.16	1,223	1,915	692
D	23.39	23.39	0	1,915	1,915	0
E	23.17	23.17	0	1,915	1,915	0
F	23.42	12.66	10.76	1,915	2,679	764
G	23.62	12.42	11.20	2,679	3,518	839
Н	23.39	12.70	10.69	3,518	3,840	322
1	23.27	12.99	10.28	3,840	4,556	716
J	22.96	12.10	10.86	4,556	5,303	747

			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	41.40	26.56	14.84	0	468	468
В	41.87	26.42	15.45	468	977	509
С	41.93	26.15	15.78	977	1,602	625
D	41.67	27.02	14.65	1,602	2,090	488
E	41.25	26.50	14.75	2,090	2,528	438
F	41.55	27.53	14.02	2,528	2,918	390
G	42.27	27.67	14.60	2,918	3,352	434
Н	41.62	23.63	17.99	3,352	3,794	442
1	41.92	26.90	15.02	3,794	4,224	430
J	41.65	25.51	16.14	4,224	4,765	541

	PHOTO BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	23.81	16.15	7.66	0	2,630	2,630			
В	23.98	16.11	7.87	2,630	4,236	1,606			





	Stinky Ink							
			CYAN					
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions		
Α	24.12	14.40	9.72	0	671	671		
В	23.91	15.83	8.08	671	1,087	416		
С	24.03	16.53	7.50	1,087	1,508	421		
D	24.42	16.85	7.57	1,508	1,795	287		
E	24.32	16.12	8.20	1,795	2,588	793		
F	24.32	16.18	8.14	2,588	3,022	434		
G	22.83	16.41	6.42	3,022	3,389	367		
Н	24.14	15.76	8.38	3,389	3,903	514		
I	23.74	14.63	9.11	3,903	4,640	737		

			MAGENTA			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	24.12	14.40	9.72	0	671	671
В	23.91	15.83	8.08	671	1,086	415
С	24.03	16.53	7.50	1,086	1,236	150
D	24.84	17.37	7.47	1,236	1,743	507
E	24.32	16.12	8.20	1,743	1,835	92
F	23.46	17.63	5.83	1,835	2,149	314
G	24.39	15.85	8.54	2,149	2,773	624
Н	24.85	17.90	6.95	2,773	3,027	254
1	24.90	17.04	7.86	3,027	3,513	486
J	24.32	17.66	6.66	3,513	3,903	390

			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	24.16	16.60	7.56	0	579	579
В	24.01	16.42	7.59	579	1,086	507
С	24.36	16.88	7.48	1,086	1,245	159
D	24.35	16.62	7.73	1,245	1,776	531
E	24.17	15.65	8.52	1,776	2,327	551
F	23.77	13.19	10.58	2,327	3,022	695
G	24.38	16.16	8.22	3,022	3,389	367
Н	24.15	17.54	6.61	3,389	3,766	377
1	24.22	16.88	7.34	3,766	4,391	625
J	23.99	17.38	6.61	4,391	4,798	407





			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	39.54	22.74	16.80	0	553	553
В	39.68	25.04	14.64	553	1,070	517
С	39.64	30.51	9.13	1,070	1,152	82
D	39.09	22.69	16.40	1,152	1,711	559
E	39.12	22.50	16.62	1,711	2,773	1,062
F	39.33	29.73	9.60	2,773	3,221	448
G	39.36	23.24	16.12	3,221	3,752	531
н	39.37	37.70	1.67	3,752	3,766	14
1	39.39	23.26	16.13	3,766	4,308	542

PHOTO BLACK							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions	
Α	24.28	16.79	7.49	0	1,776	1,776	
В	24.31	16.44	7.87	1,776	3,752	1,976	

			HQ-Patronen						
	CYAN								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	21.67	13.84	7.83	0	739	739			
В	21.39	13.22	8.17	739	1,270	531			
С	21.43	13.98	7.45	1,270	1,583	313			
D	21.57	14.02	7.55	1,583	1,863	280			
E	21.93	13.96	7.97	1,863	2,124	261			
F	21.96	13.64	8.32	2,124	2,693	569			
G	21.55	13.87	7.68	2,693	3,106	413			
н	21.38	13.62	7.76	3,106	3,541	435			
1	21.59	13.82	7.77	3,541	4,063	522			
J	21.60	14.08	7.52	4,063	4,772	709			





			MAGENTA			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	22.14	13.23	8.91	0	739	739
В	21.25	13.72	7.53	739	1,201	462
С	22.27	14.26	8.01	1,201	1,434	233
D	21.61	13.64	7.97	1,434	1,686	252
E	21.70	14.15	7.55	1,686	2,042	356
F	21.71	15.03	6.68	2,042	2,405	363
G	22.00	14.02	7.98	2,405	2,929	524
н	21.89	13.68	8.21	2,929	3,310	381
1	21.89	13.87	8.02	3,310	3,569	259
J	21.56	12.35	9.21	3,569	4,409	840

			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	22.03	13.94	8.09	0	739	739
В	22.02	12.25	9.77	739	1,361	622
С	21.83	13.67	8.16	1,361	1,686	325
D	21.94	12.26	9.68	1,686	2,274	588
E	21.30	13.55	7.75	2,274	2,693	419
F	21.63	13.64	7.99	2,693	3,106	413
G	21.89	13.56	8.33	3,106	3,541	435
н	22.04	12.53	9.51	3,541	4,409	868
1	21.82	13.90	7.92	4,409	5,015	606
J	21.85	13.95	7.90	5,015	5,609	594

	BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	37.75	21.10	16.65	0	556	556			
В	37.11	19.35	17.76	556	1,201	645			
С	38.10	18.15	19.95	1,201	1,583	382			
D	38.11	22.69	15.42	1,583	2,042	459			
E	37.24	22.89	14.35	2,042	2,405	363			
F	37.90	17.98	19.92	2,405	2,929	524			
G	37.22	21.50	15.72	2,929	3,541	612			
Н	37.06	22.23	14.83	3,541	4,088	547			
1	38.05	23.33	14.72	4,088	4,549	461			
J	37.55	22.47	15.08	4,549	5,088	539			

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Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions	
Α	21.65	14.3	7.35	0	2,338	2,338	
В	21.72	14.36	7.36	2,338	3,569	1,231	



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			Prestige			
			CYAN			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	22.57	15.34	7.23	0	500	500
В	22.49	14.40	8.09	500	1,074	574
С	23.16	14.64	8.52	1,074	2,423	1,349
D	22.60	15.11	7.49	2,423	2,869	446
E	22.52	14.94	7.58	2,869	3,558	689
F	21.47	14.78	6.69	3,558	4,051	493
G	23.01	13.88	9.13	4,051	4,741	690
Н	22.65	13.78	8.87	4,741	5,271	530
1	23.06	15.25	7.81	5,271	5,800	529
J	22.57	14.18	8.39	5,800	6,501	701

			MAGENTA			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	22.49	15.44	7.05	0	432	432
В	22.11	14.86	7.25	432	1,000	568
С	22.51	14.97	7.54	1,000	1,453	453
D	22.28	11.97	10.31	1,453	2,423	970
E	22.09	13.03	9.06	2,423	2,869	446
F	22.38	15.83	6.55	2,869	3,430	561
G	22.45	15.53	6.92	3,430	3,831	401
Н	22.52	12.34	10.18	3,831	4,602	771
1	22.47	15.82	6.65	4,602	4,992	390
J	21.81	11.63	10.18	4,992	6,115	1,123

			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	22.61	13.39	9.22	0	812	812
В	22.51	15.29	7.22	812	1,206	394
С	22.84	15.39	7.45	1,206	1,853	647
D	22.65	16.73	5.92	1,853	2,572	719
E	22.57	14.17	8.40	2,572	3,337	765
F	22.14	15.73	6.41	3,337	3,792	455
G	22.32	15.05	7.27	3,792	4,296	504
Н	22.09	12.25	9.84	4,296	4,992	696
I	21.96	15.12	6.84	4,992	5,381	389
J	23.28	14.38	8.90	5,381	5,897	516





			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	37.84	22.34	15.50	0	386	386
В	38.31	24.76	13.55	386	836	450
С	38.48	20.11	18.37	836	1,453	617
D	37.88	23.78	14.10	1,453	2,423	970
E	38.34	24.05	14.29	2,423	2,869	446
F	38.05	23.12	14.93	2,869	3,503	634
G	38.18	26.56	11.62	3,503	3,831	328
Н	38.22	22.46	15.76	3,831	4,296	465
1	38.05	23.72	14.33	4,296	4,741	445
J	41.95	25.81	16.14	4,741	5,249	508

PHOTO BLACK							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions	
Α	22.7	14.37	8.33	0	3,048	3,048	
В	22.74	15.2	7.54	3,048	5,271	2,223	
С	23.05	15.4	7.65	5,271	6,118	847	

			Peach						
	CYAN								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	23.00	16.05	6.95	0	617	617			
В	22.90	13.38	9.52	617	1,261	644			
С	23.25	15.25	8.00	1,261	1,707	446			
D	23.53	16.39	7.14	1,707	2,007	300			
E	23.12	16.58	6.54	2,007	2,301	294			
F	23.18	16.76	6.42	2,301	2,623	322			
G	23.76	16.30	7.46	2,623	3,146	523			
н	23.95	15.13	8.82	3,146	3,799	653			
1	23.36	14.98	8.38	3,799	4,556	757			
J	23.94	17.07	6.87	4,556	5,239	683			





			MAGENTA			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	26.49	17.19	9.30	0	742	742
В	26.19	16.58	9.61	742	1,268	526
С	26.42	15.04	11.38	1,268	1,707	439
D	24.06	16.96	7.10	1,707	2,179	472
E	26.31	17.08	9.23	2,179	2,623	444
F	26.49	16.58	9.91	2,623	3,340	717
G	23.82	16.69	7.13	3,340	3,799	459
н	26.14	17.40	8.74	3,799	4,556	757
1	26.71	18.11	8.60	4,556	5,257	701
J	26.29	17.35	8.94	5,257	5,881	624

	YELLOW							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions		
Α	26.07	14.62	11.45	0	928	928		
В	26.21	16.03	10.18	928	1,618	690		
С	25.95	15.68	10.27	1,618	1,912	294		
D	25.70	13.60	12.10	1,912	2,623	711		
E	26.25	15.50	10.75	2,623	3,367	744		
F	25.91	15.58	10.33	3,367	4,264	897		
G	26.46	16.43	10.03	4,264	5,239	975		
Н	25.49	15.57	9.92	5,239	5,881	642		

			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	46.88	29.46	17.42	0	547	547
В	43.72	20.13	23.59	547	1,261	714
С	46.39	28.61	17.78	1,261	1,707	446
D	44.11	27.22	16.89	1,707	2,032	325
E	45.65	22.01	23.64	2,032	2,584	552
F	48.23	24.11	24.12	2,584	3,340	756
G	46.82	25.60	21.22	3,340	4,015	675
н	43.88	28.37	15.51	4,015	4,582	567
1	46.11	30.33	15.78	4,582	5,139	557
J	44.59	29.55	15.04	5,139	5,629	490

PHOTO BLACK							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions	
Α	23.22	15.53	7.69	0	1,707	1,707	
В	23.32	14.25	9.07	1,707	3,799	2,092	





## Canon OEM Inks versus Third-Party "Compatible" Inks

			КМР			
			CYAN			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	24.96	13.92	11.04	0	597	597
В	24.95	15.35	9.60	597	929	332
С	24.62	14.04	10.58	929	1,424	495
D	24.98	15.61	9.37	1,424	2,257	833
E	24.97	15.64	9.33	2,257	2,532	275
F	24.63	14.25	10.38	2,532	3,204	672
G	24.74	14.30	10.44	3,204	4,063	859
Н	24.70	14.07	10.63	4,063	4,760	697

MAGENTA								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions		
Α	24.62	19.71	4.91	0	192	192		
В	24.67	15.02	9.65	192	929	737		
С	24.57	22.62	1.95	929	929	0		
D	24.29	22.50	1.79	929	929	0		
E	24.57	14.90	9.67	929	1,530	601		
F	23.67	14.09	9.58	1,530	2,296	766		
G	24.41	15.90	8.51	2,296	2,532	236		
Н	23.77	14.53	9.24	2,532	3,035	503		
I	24.54	15.01	9.53	3,035	3,657	622		
J	23.78	14.52	9.26	3,657	4,490	833		

			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	24.87	14.44	10.43	0	597	597
В	24.93	16.31	8.62	597	929	332
С	24.36	23.36	1.00	929	929	0
D	24.34	14.71	9.63	929	1,530	601
E	24.65	14.25	10.40	1,530	2,303	773
F	24.96	14.23	10.73	2,303	2,742	439
G	24.70	15.26	9.44	2,742	3,392	650
н	24.84	14.98	9.86	3,392	4,063	671
1	24.66	15.01	9.65	4,063	4,760	697
J	24.67	15.18	9.49	4,760	5,578	818





	BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	42.10	25.13	16.97	0	306	306			
В	42.19	26.36	15.83	306	838	532			
С	42.23	26.21	16.02	838	1,197	359			
D	42.15	26.74	15.41	1,197	1,729	532			
E	42.49	26.79	15.70	1,729	2,345	616			
F	42.61	27.22	15.39	2,345	2,730	385			
G	42.72	24.65	18.07	2,730	3,135	405			
Н	42.89	27.65	15.24	3,135	3,656	521			
I	42.66	27.70	14.96	3,656	4,182	526			
J	42.62	27.69	14.93	4,182	4,747	565			

PHOTO BLACK							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions	
Α	25.24	24.93	0.31	0	929	929	
В	22.22	17.64	4.58	929	2,296	1,367	

	Cartridge Kingdom								
	CYAN								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	23.36	13.18	10.18	0	1,071	1,071			
В	22.75	14.61	8.14	1,071	1,563	492			
С	22.88	12.08	10.80	1,563	2,181	618			
D	23.36	12.81	10.55	2,181	2,518	337			
E	23.29	15.28	8.01	2,518	3,725	1207			
F	23.04	13.39	9.65	3,725	4,736	1011			
G	22.47	16.76	5.71	4,736	5,185	449			

			MAGENTA			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	22.96	12.15	10.81	0	1,071	1,071
В	22.99	11.85	11.14	1,071	1,565	494
С	21.46	11.75	9.71	1,565	2,173	608
D	22.80	15.29	7.51	2,173	2,516	343
E	22.96	12.20	10.76	2,516	3,222	706
F	21.55	11.83	9.72	3,222	3,816	594
G	21.45	11.80	9.65	3,816	4,337	521
н	23.04	15.42	7.62	4,337	4,828	491
1	22.93	12.05	10.88	4,828	5,648	820





			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	21.02	11.95	9.07	0	1,071	1,071
В	23.28	11.90	11.38	1,071	1,766	695
С	21.33	11.65	9.68	1,766	2,132	366
D	23.76	15.23	8.53	2,132	2,659	527
E	21.40	14.28	7.12	2,659	3,602	943
F	23.05	11.57	11.48	3,602	4,233	631
G	23.11	14.19	8.92	4,233	4,736	503
Н	23.08	11.75	11.33	4,736	5,645	909

			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	38.95	23.61	15.34	0	488	488
В	39.39	23.63	15.76	488	1,071	583
С	39.21	23.81	15.40	1,071	1,516	445
D	37.33	22.70	14.63	1,516	1,925	409
E	37.95	24.74	14.33	1,925	2,438	513
F	39.92	28.72	11.20	2,438	3,022	584
G	38.98	27.87	11.11	3,022	3,452	430
н	37.22	21.44	15.78	3,452	4,023	571
1	37.41	29.79	7.62	4,023	4,523	500
J	39.75	24.01	15.74	4,523	4,943	420

PHOTO BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions		
Α	21.23	11.68	9.55	0	3,816	3,816		
В	23.11	14.75	8.36	3,816	5,717	1,901		

			LX Tek						
	CYAN								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	22.41	14.15	8.26	0	621	621			
В	23.16	12.26	10.90	621	1,275	654			
С	22.59	12.58	10.01	1,275	1,862	587			
D	22.18	14.42	7.76	1,862	2,322	460			
E	22.41	15.00	7.41	2,322	2,778	456			
F	22.42	14.42	8.00	2,778	3,401	623			
G	22.19	14.57	7.62	3,401	3,591	190			
Н	22.43	14.13	8.30	3,591	3,884	293			
I	22.15	14.53	7.62	3,884	4,134	250			





	MAGENTA								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	22.21	14.51	7.70	0	609	609			
В	22.24	13.64	8.60	609	955	346			
С	22.24	14.18	8.06	955	1,400	445			
D	21.69	14.58	7.11	1,400	1,862	462			
E	21.48	14.12	7.36	1,862	2,387	525			
F	21.62	14.72	6.90	2,387	2,778	391			
G	21.83	14.82	7.01	2,778	3,385	607			
н	21.73	14.60	7.13	3,385	3,591	206			
1	22.10	13.96	8.14	3,591	3,884	293			
J	22.19	14.88	7.31	3,884	4,088	204			

			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	21.75	13.92	7.83	0	621	621
В	23.16	11.95	11.21	621	1,275	654
С	22.17	15.09	7.08	1,275	1,696	421
D	22.09	14.63	7.46	1,696	2,173	477
E	21.62	14.99	6.63	2,173	2,659	486
F	22.42	14.79	7.63	2,659	3,362	703
G	21.80	14.26	7.54	3,362	3,591	229
Н	22.07	13.36	8.71	3,591	4,100	509
1	21.59	11.48	10.11	4,100	4,499	399

	BLACK								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	38.28	22.20	16.08	0	515	515			
В	38.00	22.47	15.53	515	921	406			
С	38.25	22.95	15.30	921	1,400	479			
D	38.04	23.93	14.11	1,400	1,875	475			
E	37.98	21.95	16.03	1,875	2,401	526			
F	38.52	21.92	16.60	2,401	2,857	456			
G	38.27	21.09	17.18	2,857	3,541	684			
н	38.09	21.21	16.88	3,541	3,591	50			
1	38.00	21.37	16.63	3,591	4,100	509			
J	38.05	21.57	16.48	4,100	4,145	45			

PHOTO BLACK							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions	
Α	22.18	17.99	4.19	0	1,875	1,875	
В	21.84	14.10	7.74	1,875	3,861	1,986	



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	Colour Direct								
CYAN									
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	21.32	11.87	9.45	0	752	752			
В	21.41	13.50	7.91	752	1,160	408			
С	21.39	11.83	9.56	1,160	1,952	792			
D	21.76	14.35	7.41	1,952	2,577	625			
E	21.38	14.54	6.84	2,577	3,163	586			
F	21.37	14.25	7.12	3,163	3,662	499			
G	21.12	13.80	7.32	3,662	4,013	351			
Н	21.09	13.85	7.24	4,013	4,630	617			
1	21.13	13.91	7.22	4,630	5,070	440			

	MAGENTA								
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	21.56	14.16	7.40	0	625	625			
В	21.34	13.37	7.97	625	1,004	379			
С	21.46	12.93	8.53	1,004	1,477	473			
D	21.44	14.12	7.32	1,477	1,952	475			
E	23.73	18.37	5.36	1,952	1,961	9			
F	21.52	11.27	10.25	1,961	2,702	741			
G	21.28	17.81	3.47	2,702	2,998	296			
Н	21.27	13.78	7.49	2,998	3,503	505			
1	21.28	14.81	6.47	3,503	3,920	417			
J	21.12	14.93	6.19	3,920	4,408	488			

			YELLOW			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	21.37	13.73	7.64	0	627	627
В	21.36	13.97	7.39	627	1,006	379
С	21.33	11.69	9.64	1,006	1,627	621
D	21.42	12.46	8.96	1,627	1,952	325
E	21.24	13.91	7.33	1,952	2,505	553
F	21.39	14.26	7.13	2,505	3,087	582
G	21.31	14.32	6.99	3,087	3,503	416
Н	21.48	14.71	6.77	3,503	3,920	417
1	21.32	11.77	9.55	3,920	4,630	710





			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	37.78	21.30	16.48	0	527	527
В	37.60	21.58	16.02	527	907	380
С	37.53	18.92	18.61	907	1,477	570
D	37.70	22.95	14.75	1,477	1,952	475
E	37.95	22.08	15.87	1,952	2,225	273
F	37.84	23.12	14.72	2,225	2,736	511
G	37.88	22.49	15.39	2,736	3,256	520
н	37.81	22.54	15.27	3,256	3,663	407
1	37.69	18.37	19.32	3,663	4,298	635
J	37.93	22.86	15.07	4,298	4,883	585

PHOTO BLACK							
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions	
Α	21.61	13.25	8.36	0	1,952	1,952	
В	21.97	12.38	9.59	1,952	4,630	2,678	

#### Canon PIXMA TS3150

	Canon OEM								
			СМҮ						
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	41.77	30.39	11.38	0	306	306			
В	41.89	30.17	11.72	306	621	315			
С	41.68	32.06	9.62	621	931	310			
D	41.66	30.16	11.50	931	1,244	313			
E	41.71	31.01	10.70	1,244	1,566	322			
F	41.61	29.34	12.27	1,566	1,892	326			
G	41.72	30.80	10.92	1,892	2,223	331			
н	41.77	30.79	10.98	2,223	2,544	321			
I	41.77	30.90	10.87	2,544	2,871	327			
J	41.79	30.91	10.88	2,871	3,189	318			





			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	40.58	26.68	13.90	0	469	469
В	40.52	26.51	14.01	469	927	458
С	40.50	26.33	14.17	927	1,380	453
D	40.52	26.62	13.90	1,380	1,822	442
E	40.54	26.42	14.12	1,822	2,256	434
F	40.71	26.67	14.04	2,256	2,706	450
G	40.58	26.59	13.99	2,706	3,157	451
н	40.59	26.32	14.27	3,157	3,587	430
1	40.59	26.90	13.69	3,587	4,029	442
J	40.70	26.59	14.11	4,029	4,440	411

			123			
			СМҮ			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	39.42	32.78	6.64	0	235	235
В	41.17	34.40	6.77	235	378	143
С	40.72	40.55	0.17	378	380	2
D	40.41	30.77	9.64	380	596	216
E	41.01	31.39	9.62	596	881	285
F	40.80	40.25	0.55	881	887	6
G	40.83	40.52	0.31	887	890	3

			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	37.97	27.02	10.95	0	354	354
В	37.24	27.92	9.32	354	492	138
С	38.66	27.67	10.99	492	633	141
D	38.39	37.66	0.73	633	643	10
E	38.85	38.18	0.67	643	655	12
F	38.60	37.85	0.75	655	674	19
G	38.95	35.28	3.67	674	790	116
Н	38.29	37.48	0.81	790	797	7
I	39.01	35.41	3.60	797	919	122
J	38.97	35.40	3.57	919	1,022	103





			Picture Exper	t		
			СМҮ			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	38.63	38.63	0.00	0	10	10
В	39.39	39.39	0.00	10	10	0
С	36.59	36.59	0.00	10	10	0
D	39.01	39.01	0.00	10	10	0
E	38.97	38.97	0.00	10	10	0
F	36.93	36.93	0.00	10	10	0
G	38.42	31.16	7.26	10	221	211
н	38.03	35.78	2.25	221	226	5
1	37.20	35.82	1.38	226	229	3
J	39.55	32.02	7.53	229	412	183

			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	38.48	38.48	0.00	0	10	10
В	40.23	40.23	0.00	10	10	0
С	40.70	40.70	0.00	10	10	0
D	40.11	40.11	0.00	10	10	0
E	40.66	40.66	0.00	10	10	0
F	40.07	40.07	0.00	10	10	0
G	40.14	32.79	7.35	10	226	216
Н	40.57	40.57	0.00	226	226	0

	Stinky Ink								
			СМҮ						
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	44.13	43.61	0.52	0	16	16			
В	41.37	37.45	3.92	16	152	136			
С	41.34	41.34	0.00	152	152	0			
D	40.72	40.72	0.00	152	152	0			
E	40.79	40.79	0.00	152	152	0			
F	41.16	41.16	0.00	152	152	0			
G	44.29	44.29	0.00	152	152	0			
н	41.11	41.11	0.00	152	152	0			
I	40.40	33.20	7.20	152	368	216			
J	41.93	41.93	0.00	368	368	0			





			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	40.92	37.61	3.31	0	102	102
В	41.78	41.05	0.73	102	133	31
С	41.69	33.87	7.82	133	374	241
D	41.69	40.95	0.74	374	393	19
E	41.42	40.70	0.72	393	401	8
F	41.36	40.63	0.73	401	421	20
G	41.67	40.95	0.72	421	441	20
н	40.88	40.13	0.75	441	461	20

			Prestige			
			СМҮ			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	39.66	27.94	11.72	0	308	308
В	39.82	28.15	11.67	308	608	300
С	39.71	27.77	11.94	608	895	287
D	40.00	27.46	12.54	895	1,231	336
E	39.89	27.57	12.32	1,231	1,498	267
F	39.49	28.77	10.72	1,498	1,734	236
G	39.94	30.22	9.72	1,734	1,827	93
н	39.54	27.68	11.86	1,827	2,046	219
1	39.76	26.70	13.06	2,046	2,313	267
J	39.68	28.14	11.54	2,313	2,468	155

			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	36.61	29.20	7.41	0	278	278
В	36.73	27.18	9.55	278	603	325
С	36.55	22.40	14.15	603	1,058	455
D	36.44	27.44	9.00	1,058	1,390	332
E	36.73	24.78	11.95	1,390	1,790	400
F	36.60	25.38	11.22	1,790	2,250	460
G	36.82	35.69	1.13	2,250	2,270	20
Н	36.78	35.66	1.12	2,270	2,312	42
1	36.01	27.03	8.98	2,312	2,525	213
J	36.62	27.31	9.31	2,525	2,780	255





		Ca	rtridge Kingd	om		
			СМҮ			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	39.69	36.40	3.29	0	13	13
В	39.60	26.93	12.67	13	400	387
С	39.81	29.05	10.76	400	502	102
D	39.36	27.86	11.50	502	828	326
E	40.38	27.43	12.95	828	1,139	311
F	39.20	27.72	11.48	1,139	1,386	247
G	39.68	28.52	11.16	1,386	1,646	260
Н	39.26	37.12	2.14	1,646	1,679	33
1	39.57	30.29	9.28	1,679	1,895	216
J	39.78	27.31	12.47	1,895	2,184	289

			BLACK			
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions
Α	36.01	24.17	11.84	0	267	267
В	34.73	34.73	0.00	267	267	0
С	35.12	24.41	10.71	267	477	210
D	36.25	25.24	11.01	477	1,027	550
E	35.43	24.36	11.07	1,027	1,480	453
F	36.41	24.69	11.72	1,480	1,741	261
G	36.25	24.62	11.63	1,741	1,979	238
н	36.34	25.11	11.23	1,979	2,216	237
I	37.19	25.30	11.89	2,216	2,445	229
J	35.56	23.96	11.60	2,445	2,701	256

CMYBabee									
			СМҮ						
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	39.75	27.67	12.08	0	318	318			
В	39.64	27.92	11.72	318	634	316			
С	39.59	39.22	0.37	634	636	2			
D	39.39	28.60	10.79	636	842	206			
E	39.74	28.30	11.44	842	1,079	237			
F	39.55	31.51	8.04	1,079	1,267	188			
G	39.90	28.31	11.59	1,267	1,498	231			
н	39.96	28.08	11.88	1,498	1,773	275			
1	39.45	27.66	11.79	1,773	2,040	267			
J	39.77	27.98	11.79	2,040	2,314	274			





BLACK									
Cartridge Set	Full Weight (grams)	Empty Weight (grams)	Net Weight (grams)	Total Counter at Start	Total Counter at End	Total Impressions			
Α	35.68	27.19	8.49	0	272	272			
В	36.19	27.70	8.49	272	513	241			
С	34.59	26.97	7.62	513	629	116			
D	32.77	28.20	4.57	629	856	227			
E	33.91	27.26	6.65	856	1,037	181			
F	35.39	27.95	7.44	1,037	1,254	217			
G	32.80	29.78	3.02	1,254	1,301	47			
н	33.85	27.53	6.32	1,301	1,439	138			
1	34.76	26.69	8.07	1,439	1,659	220			
J	35.70	27.02	8.68	1,659	1,888	229			

# **Test Methodology**

Buyers Lab used 40 Canon printers to test multiple compatible ink cartridge brands, including the Canon OEM brand. The OEM and third-party cartridges were run on the following devices: Canon PIXMATS3150, Canon PIXMATS5050, Canon PIXMA TS5150, and Canon PIXMA iP7250. While six third-party cartridge types were tested with the Canon PIXMA TS3150 device, 10 compatible brands were tested in the other devices. Cartridges for all ink cartridge brands were tested for page yield, reliability, and image quality. To eliminate cross contamination, brand-new devices were dedicated to the testing of each ink cartridge brand, with 40 devices used in total. Each ink cartridge brand was tested using an ISO test document and Buyers Lab's proprietary image quality test targets, with each device being run until it had consumed 10 sets of ink cartridges.

An ink cartridge brand was allocated to a specific printer and Buyers Lab's technicians exhausted three ink cartridge sets on each printer by printing the ISO 24712 test target suite. Each printer was operated in default mode via Buyers Lab's network connection, with its PCL driver. Page yield, cartridge reliability and image quality were evaluated per the followina:

A. Ink Yield: Ink cartridges of each ink brand were run to exhaustion on a brand-new Canon printer, printing on Mondi media. Yield was determined using the ISO 24712 colour test target. A comparative yield assessment was conducted to measure the genuine Canon ink cartridge's performance against that of each "compatible" brand. Each cartridge was weighed before and after testing to determine net ink weight. Each cartridge was run until the "ink out" warning was displayed on the device's LCD, provided that image quality remained acceptable and no reliability problems were encountered beforehand. When it had expired, the cartridge was removed and weighed, and the page count was recorded. The results of the "average-pages-printed" performance were calculated from the performance of all cartridges tested (including all "out-of-box" failures and print quality and reliability failures that occurred). Any cartridge malfunctions, including "out-of-box" failures, operation failures, ink leakage, cartridge flaws, and background on printed pages, as well as printer malfunctions caused by cartridges, were recorded. Cartridges classified as "out-of-box" failures are those that either could not be run due to excessive ink leakage, were broken, or had missing parts, as well as cartridges that produced only 20 or fewer acceptable pages in the test. Cartridges classified as "early end of life" are those that produced less

than 75% of the rated yield.

B. Hardware Observations: Buyers Lab test technicians photographed any defective cartridges, ink leaks, error messages, and device contamination.

C. Reliability: Throughout testing, Buyers Lab test technicians recorded any cartridge malfunctions, such as operation failure, ink leakage, and background on printed pages, as well as device malfunctions caused by cartridges.





**D.** Image Quality: In evaluating image quality, Buyers Lab assessed the output quality over a selection of parameters, including solid density, fine lines, text reproduction and halftones at the start of testing and at every 500-impression interval thereafter. Output was graded from one to three, with one-grade output deemed unsuitable for use inside or outside of a company and three-grade output deemed suitable for either use. Image quality samples were printed on 80 gsm media and 260 gsm glossy media, except for output produced using a Canon PIXMA TS3150, which was printed on 80 gsm media only.

**E.** Impact of Water Spillage: Buyers Lab's lab technicians used a proprietary test target to test the effect of dropping a measured amount of water on printed output. The water was added to the output placed on a flat surface. The output was also placed at a specific angle to test the visual impact of having a measured amount of water run over the test marker.

**F.** Impact of Highlighter Overwriting: Buyers Lab's lab technicians used a proprietary test target to assess the impact of overwriting printed output with a highlighter pen. Buyers Lab's technicians highlighted printed output, waited for two minutes and then performed a 300dpi scan on the output to create a searchable PDF to assess the effect of highlighter smearing on legibility.

## **Test Environment/Conditions**

All testing was conducted in a controlled environment at Buyers Lab's UK test facility located at Unit 11, The Business Centre, Molly Millars Lane, Wokingham, RG41 2QZ per the following conditions:

**A.** Temperature was maintained at 22°C, +/-2.7°C with daily conditions monitored and logged 24/7 by a Seven-Day Temperature/ Humidity Chart Recorder.

**B.** Relative humidity was maintained within 45% +/- 10% with daily conditions monitored and logged 24/7 by a Seven-Day Temperature/Humidity Chart Recorder.

**C.** Materials conditioning: Printers, paper, and cartridges were acclimatized to the above conditions for a minimum of 24 hours prior to testing. Prior to acclimatization, packaging and shipping materials were opened in a manner that prevented damage from occurring to the print cartridge during acclimatization. Paper was acclimatized in a ream wrapper.

All devices and cartridges used in testing were purchased by Buyers Lab on the open market.

## **About Keypoint Intelligence - Buyers Lab**

Keypoint Intelligence is a one-stop shop for the digital imaging industry. With our unparalleled tools and unmatched depth of knowledge, we cut through the noise of data to offer clients the unbiased insights and responsive tools they need in those mission-critical moments that define their products and empower their sales.

For over 50 years, Buyers Lab has been the global document imaging industry's resource for unbiased and reliable information, test data, and competitive selling tools. What started out as a consumer-based publication about office equipment has become an all-encompassing industry resource. Buyers Lab evolves in tandem with the ever-changing landscape of document imaging solutions, constantly updating our methods, expanding our offerings, and tracking cut-ting-edge developments.

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