

**Yield Reporting Form for HP Inc. Toner Supplies Solutions Group:
HP Color LaserJet Pro M454 and HP Color LaserJet Pro MFP M479 cartridge models
W2020X, W2021X, W2022X, W2023X/W2030X, W2031X, W2032X, W2033X/W2040X,
W2041X, W2042X, W2043X¹**

Declared ISO Yield

Toner cartridge yield:

Average composite CMY cartridge yield 6,000 standard pages²

Average K cartridge yield 7,500 standard pages²

Declared yield value in accordance with ISO/IEC 19798 based on continuous printing.

Values reported do not include measurement uncertainty.

The results within this report relate only to the items tested as identified in this report.

Calculated test values

90% lower confidence limit ²	
HP Cyan LaserJet Toner Cartridge	7,037 pages
HP Magenta LaserJet Toner Cartridge	7,198 pages
HP Yellow LaserJet Toner Cartridge	5,806 pages
Composite CMY	6,619 pages
HP Black LaserJet Toner Cartridge	7,905 pages
Test date: beginning	3/11/2020
Test dates: ending	3/19/2020
Number of cartridges used in testing	48
Number of cartridges used in calculations	C=12, M=12, Y=12, K=12 (Total=48)
Type of cartridge	All-in-one
Shake procedure used?	Yes
Print mode	Continuous
MPACCO Mode	Off
Number of engines used in testing	4
Media	HP Multipurpose
Paper size	Letter
Paper feed orientation	Short edge
Computer model	HP 250 G5 Notebook
Operating system	Microsoft Windows 10
Application software or HP Direct Print	Batch file running hpnpf.exe
Print driver version or HP Direct Print	None: Internal PDF interpreter
Connection type	network
Test page version	ISO-IEC 24712
Power on/off every day	No

Engine serial numbers:

Engine Firmware Version:

VNB3K03668	SHMNT2XXXN002.2002B.00
VNB3S03632	SHMNT2XXXN002.2002B.00
MXBCM9Y3HT	CLRWTRXXXN002.2002B.00
MXBCM81F4	CLRWTRXXXN002.2002B.00

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Cartridge testing data

Test environmental limits:	Temperature	Humidity
	°C	%RH
Max running average	23.5	53
Min running average	23.5	49
Average	23.1	51

Cyan (W2021X) in CLJ Pro M454 and CLJ Pro MFP M479				Magenta (W2023X) in CLJ Pro M454 and CLJ Pro MFP M479			
Average:		7,218		Average:		7,320	
Standard Deviation:		349		Standard Deviation:		234	
90% LCB:		7,037		90% LCB:		7,198	
Cartridge#	Lot Code	Engine SerNo	Cartridge Yield	Cartridge#	Lot Code	Engine SerNo	Cartridge Yield
W2021X-50	9J20M2Ea	VNB3K03668	7,745	W2023X-50	9K17M1Ea	VNB3K03668	7,450
W2021X-51	9J20M2Ea	VNB3S03632	7,250	W2023X-51	9K17M1Ea	VNB3S03632	7,300
W2021X-52	9J20M2Ea	MXBCM9Y3HT	7,130	W2023X-52	9K17M1Ea	MXBCM9Y3HT	7,155
W2021X-53	9J20M2Ea	MXBCMB81F4	6,450	W2023X-53	9K17M1Ea	MXBCMB81F4	7,065
W2021X-54	9K05M3Ea	VNB3K03668	7,750	W2023X-54	9J27M2Ea	VNB3K03668	7,870
W2021X-55	9K05M3Ea	VNB3S03632	7,350	W2023X-55	9J27M2Ea	VNB3S03632	7,500
W2021X-56	9K05M3Ea	MXBCM9Y3HT	7,010	W2023X-56	9J27M2Ea	MXBCM9Y3HT	7,325
W2021X-57	9K05M3Ea	MXBCMB81F4	7,300	W2023X-57	9J27M2Ea	MXBCMB81F4	7,195
W2021X-58	9J27M2Ea	VNB3K03668	7,415	W2023X-58	9K05M2Ea	VNB3K03668	7,525
W2021X-59	9J27M2Ea	VNB3S03632	7,005	W2023X-59	9K05M2Ea	VNB3S03632	7,100
W2021X-60	9J27M2Ea	MXBCM9Y3HT	7,150	W2023X-60	9K05M2Ea	MXBCM9Y3HT	7,250
W2021X-61	9J27M2Ea	MXBCMB81F4	7,065	W2023X-61	9K05M2Ea	MXBCMB81F4	7,100

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Yellow (W2022X) in CLJ Pro M454 and CLJ Pro MFP M479				Black (W2020X) in CLJ Pro M454 and CLJ Pro MFP M479			
Average:		5,897		Average:		7,968	
Standard Deviation:		175		Standard Deviation:		122	
90% LCB:		5,806		90% LCB:		7,905	
Cartridge#	Lot Code	Engine SerNo	Cartridge Yield	Cartridge#	Lot Code	Engine SerNo	Cartridge Yield
W2022X-50	9K16M2Ea	VNB3K03668	5,855	W2020X-50	9J24M2Ea	VNB3K03668	8,015
W2022X-51	9K16M2Ea	VNB3S03632	5,915	W2020X-51	9J24M2Ea	VNB3S03632	7,850
W2022X-52	9K16M2Ea	MXBCM9Y3HT	5,985	W2020X-52	9J24M2Ea	MXBCM9Y3HT	7,715
W2022X-53	9K16M2Ea	MXBCMB81F4	6,345	W2020X-53	9J24M2Ea	MXBCMB81F4	7,955
W2022X-54	9J30M2Ea	VNB3K03668	5,950	W2020X-54	9K23M2Ea	VNB3K03668	8,005
W2022X-55	9J30M2Ea	VNB3S03632	5,700	W2020X-55	9K23M2Ea	VNB3S03632	8,060
W2022X-56	9J30M2Ea	MXBCM9Y3HT	5,860	W2020X-56	9K23M2Ea	MXBCM9Y3HT	7,850
W2022X-57	9J30M2Ea	MXBCMB81F4	5,755	W2020X-57	9K23M2Ea	MXBCMB81F4	7,990
W2022X-58	9K20M3Ea	VNB3K03668	6,005	W2020X-58	9K19M2Ea	VNB3K03668	8,000
W2022X-59	9K20M3Ea	VNB3S03632	5,760	W2020X-59	9K19M2Ea	VNB3S03632	8,025
W2022X-60	9K20M3Ea	MXBCM9Y3HT	5,910	W2020X-60	9K19M2Ea	MXBCM9Y3HT	7,955
W2022X-61	9K20M3Ea	MXBCMB81F4	5,720	W2020X-61	9K19M2Ea	MXBCMB81F4	8,200

¹ The physical cartridges for the SKU series W2020X, W2021X, W2022X, W2023X are identical to the SKU series W2030X, W2031X, W2032X, W2033X and W2040X, W2041X, W2042X, W2043X.

² In an ISO report commonly two values are listed: declared ISO yield and calculated test values. Generally, the calculated test values are higher than the declared ISO yield. Actual cartridge yields vary considerably based on content of images printed and other factors. For more information, visit www.hp.com/go/learnaboutequipment.

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