

Research Report

[2019 version of Toner Market Forecast]

"The Future of the Toner Industry:
The Safe and Sound Operation Required"

= The latest move by HP and Xerox Corp., and the developments of the environmental regulations and total cost reduction efforts =



Konica Minolta is one of the first leading makers to use titanium oxide-free toner for bizhub C360i



China now focuses on expanding the OEM market as well as aftermarket products: the product is M101DW designed internally by Lenovo



Mikasa Sangyo's fluorescent toner in collaboration with art works

Data Supply Inc.

October 2019

<Overview>

I. Theme

*** 2019 version [Toner Market Forecast] ***

“The Future of the Toner Industry: The Safe and Sound Operation Required”

=The latest move by HP and Xerox Corp., and the developments of the environmental regulations and total cost reduction efforts=

II. Abstract

The environment surrounding the toner business has begun to move drastically.

Xerox Corp. announced that it will use its own chemically prepared toner for A3 MFP supplied by HP for the first time, whereas HP will switch a chemically prepared toner supplier from Lotte Fine Chemical to Mitsubishi Chemical, showing there's a major change regarding its toner supplier relationship.

In the meantime, we should not forget the impact of the environmental regulations applied in China and an explosion at a chemical plant that, as a result, has stopped the supply of yellow colorant materials among some makers, which caused a chaotic competition for the materials and sharp price hikes by several times in the country.

Turning to new toner, Konica Minolta rolled out a fifth-generation toner that's improved the image quality. There's also speculation that some maker will soon unveil updated new toner.

A toner business is firmly built upon the pillars of “service,” “delivery,” and “sales route” to generate profits but they are now changing, as evidenced by “the consolidated service sector” as a result of fewer service opportunities, “combined shipping of toner,” which used to be dispatched separately by color, and “lower direct sales rate of hardware machines” to save sales costs. All these strenuous efforts have a significant impact on the toner business profits.

Under these circumstances, it's worth trying to know the toner makers' strategic move in terms of sales volume and value, cost, sales region, technical trend, and any alliance with a focus on the next ten years.

And how are they going to respond to Chinese third-party makers with growing presence every year and mushrooming Chinese printer makers, on top of genuine toner makers?

As a matter of course, any change in the toner business will have a major impact on the resin, colorant, carrier, magnetic oxide, CCA, WAX, and carbon black industries.

This year's report examines and analyzes trends in the toner and related industry in response to these activities from a stage of development to production and supply relationships. We hope our report helps readers with their successful business.

III. Items and Makers

1. Target Items

- 1) Toner: (1) Pulverized toner (color and monochrome) (2) Chemically prepared toner (color and monochrome)
- 2) Resin for toner: (1) Polyester-based resin (2) Styrene-acrylic-based resin (3) Others (3) Carriers (4) Magnetic oxide (5) Charge control agents (CCA) (6) Colorants for color toner (7) External additives (8) Carbon black (9) Toner wax (10) Other related items

2. Target makers

- 1) Major makers and dealers: Toner makers (75 at home and abroad) / Toner resin makers (22) / Carrier makers (4) / Magnetic oxide makers (4) / CCA makers (10) / Colorant makers (9) / External additive makers (14) / Carbon black makers (3) / Wax makers (9) (2) Other related makers

IV. Research Period and Methodology

1. Research Period: From 2017 to 2023

2. Methodology

- 1) On-site and in-person interviews with target makers
- 2) Analysis and review of open literatures, materials, statistics, and other sources
- 3) Analysis of Data Supply's own proprietary database

V. Format and Report Preparation Period

1. Research Form: This is a multi-client study.
2. Research Period: From July to mid-August, 2019
3. **Publication Date** (A4 size in PDF format): **October 18, 2019 (English version)**
4. **How to Apply:** Please apply via email. Please indicate your company name, department, office phone number, and your name in your email and send it at infods@datasupply.jp
5. **Price:** ~~¥6,000~~ (English version)
6. Researchers: Mr. Yukio YAMAMOTO, Mr. Kosuke YOSHIDA and Mr. Masafumi HARIU
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Excerpt from "Comprehensive Analysis"

(Actual figures and comments are shown in the full version.)

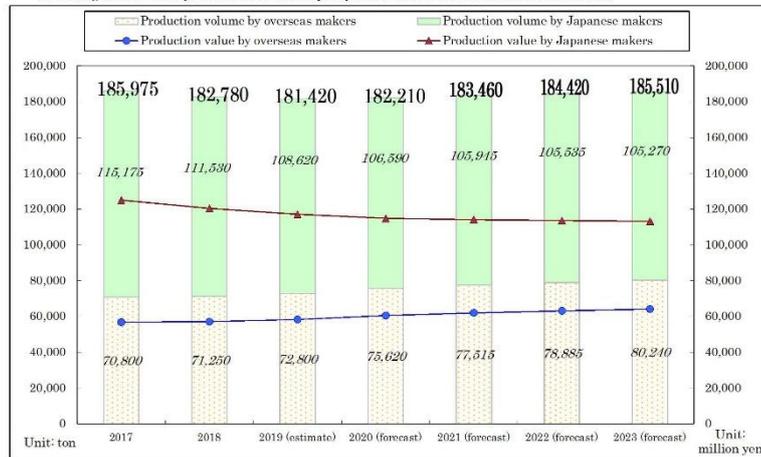
3) Breakdown of toner production volume of office and professional use (2018)

	Application	Production volume (ton)		Production value (million yen)	
			%		%
Japanese makers	Office printing	97,925	53.6	104,280	58.4
	Production printing	10,965	6.0	12,850	7.2
	Computer				
Sub total					
Overseas makers	Office prin				
	Production				
	Computer				
Sub total					

A. Comprehensive Analysis

1. Worldwide trend of toner production

1) Changes in overall production volume by Japanese and overseas makers (2017-2023)



	2017		2018		2019 (estimate)		2020 (forecast)		2021 (forecast)		2022 (forecast)		2023 (forecast)	
		%		%		%		%		%		%		%
Production volume by overseas makers														
Production volume by Japanese makers														
Total														

	2017		2018		2019 (estimate)		2020 (forecast)		2021 (forecast)		2022 (forecast)		2023 (forecast)	
		%		%		%		%		%		%		%
Production value by overseas makers														
Production value by Japanese makers														
Total														

Only toner used for prod makers, toner production office printing increased

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Excerpt from "Comprehensive Analysis"

4) Response to restricted use of titanium oxide by maker

(1) Overview of restricted use of titanium oxide in Europe

Titanium oxide is a material (external additives) used mainly to make color toner. It's used as a supplementary for charging control and silica with poor environmental compatibility, but the chemical is posing a health risk again in Europe.

June 2016	The French Agency for Food, Environmental and Occupational Health & Safety (ANSES) proposed to the European Chemicals Agency (ECHA) that it classify titanium oxide as a more severe category of Carcinogenicity Category 1B (substance suspected of causing cancer).
June 2017	The Committee for Risk Assessment (RAC), a sub-organization of ECHA, did not classify the substance as a more severe Category 1B but did classify it as Category 2 (substance "suspected" of causing cancer). The categorization does not apply to exempted items, such as cosmetics, food, and pharmaceuticals, as so designated in EU, but will likely cover paints, printing inks, and toners.
August 2019	Based on a report from the RAC, the ECHA is responsible for the final carcinogenicity categorization of the substance. According to the latest updates, if the amount of titanium oxide is less than one percent of the entire toner composition, it'll probably not be questioned. A timeline shows the decision will be made in September 2019 followed by the two-month period of feedback review before it's finalized in November. The regulation will be in effect in May 2021 at earliest after 16 months of the final decision.

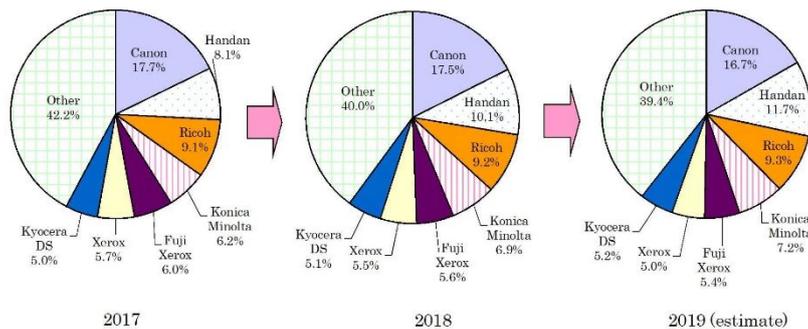
(2) Response to regul

Maker
Canon
Ricoh
Fuji Xerox
Konica Minolta
Kyocera Document Solutions
Sharp
Toshiba TEC

8) Changes in market share by maker (2017-2019)

(1) Overall

	2017		2018		2019 (estimate)	
	Unit: ton	%	Unit: ton	%	Unit: ton	%
Canon						
Handan Hanguang OA Toner						
Ricoh						
Konica Minolta						
Fuji Xerox						
Xerox Corporation						
Kyocera Document Solutions						
Trend Tone Imaging						
Tomoegawa						
Imcx						
Kao						
Sharp						
Toshiba TEC						
Jadi Imaging Technologies Sdn Bhd						
Others						
Total (Japan and overseas)						



The top three toner producers are Canon (17.5 percent of the total), Handan Hanguang OA Toner (10.2 percent), and Ricoh (9.2 percent) in 2018. Handan emerged as second.

Among Japanese makers, Konica Minolta, Kyocera Document Solutions, and Sharp increased market share.

As for overseas makers, China's Handan Hanguang OA Toner was the only maker that further increased share.

Excerpt from and "Toner Market"

4) R&D of toner

4-1 Chemically prepared toner

(1) Suspension polymerization method

Konica Minolta conducts no R&D on suspension polymerization toner.

(2) Emulsion aggregation method

	2018	2019
	In 2019, Konica Minolta started mass production of its new fifth-generation toner, upgraded from the previous generation of the hybrid toner. The basic manufacturing recipe is the same	

R&D

(5) Breakdown of production volume by plant (2018)

Unit: ton

		Pulverized toner		Chemically prepared toner		Total	
			%		%		%
Production f (production l number of production li capacity)	Canon Chemicals						
	Ueno Canon Materials						
	Oita Canon Materials						
	Japan total						
Challenge	Canon Virginia (U.S.A.)						
	Overseas total						
4-2 Pulverized	Total						
		%					

- Oita Canon Materials leads a majority of the entire production.
- Ueno Canon Materials serves as the main plant to produce toner for copiers.

R&D

Production f
(production l
number of
production li
capacity)

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Technology (HuBei) (China) 9) Guangzhou Auking Nanometer Technology (China) 10) Guangzhou Aumes Digital Technology (China) 11) Guangzhou Cetron Office Equipment (China) 12) Guangzhou Shuangyi Sci-technology (China) 13) Guangzhou VIVID Print Material (China) 14) Henan Province Lankao Photocopying Supplies Manufacturing (China) 15) Hubei Far East Zhuoyue Technology (China) 16) Huinon Toner Industrial (China) 17) Hunt Imaging (U.S.A.) 18) HYB TONER (China) 19) ICMI China (China) 20) Integral (Germany) 21) IPM (Imaging Products Manufacturing) (Turkey) 22) Naghsh Ayandegan Abyaneh (Iran) 23) Ningbo Flexitone New Materials (China) 24) Pure Toners & Developers (India) 25) Rathi Graphic Technologies (India) 26) Real Color Corporation (China) 27) RosToner (Russia) 28) Royal Precision Technology (Taiwan) 29) Sindoh (South Korea) 30) Tianjin Zhonghuan TCOA Electronics (China) 31) Troy Group Inc. (U.S.A.) 32) Union Chemical (South Korea) 33) Wuhan Zongxiang Imaging (China) 34) Wuxi Jiateng Magnetic Powder (China) 35) Wuxi Longkang Electric Technology (China) 36) Wuxi Meiling Digital Science and Technology (China) 37) Yvian Technology (Zhuhai) (China)	
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《Items common among makers》

Changes in production volume by region and type / Changes in production value by region and type / Supply volume to toner makers by type of resin / Production volume for OEM and third parties / Response to chemically prepared toner / Production base (Japan / overseas) / Facility investment and changes in R&D spending / Company overview

[1]Sanyo Chemical Industries [2]Fujikura Kasei [3]Mitsui Chemicals [4]Mitsubishi Chemical [5]DIC [6]Kao [7]Seiko PMC [8]Other makers 1) Nippon Carbide Industries (Japan) 2) Tianjin Synthetic Material Research Institute (China) 3) Zhangjiagang Weidesen Chemical (China) 4) Hubei Far East Zhuoyue Technology (China) 5) Wuhan Hanhu Polymer Material (China) 6) Wuxi Jiateng Magnetic Powder (China) 7) Wuxi Meiling Digital Science and Technology 8) Handan City New Toner Resin Limited Company (China) 9) Cangzhou Tiantongyuan (China) 10) SK Chemicals (South Korea) 11) Samyang Corporation (South Korea) 12) Shiva Performance Materials (India)

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* Back numbers of the Toner Market Forecast Report *

*The toner report (English version) has been available since 1989.

1. September, 2007
"Future Aspects of Toner for High-speed Printers and POD, and Related Materials"
2. September, 2008
"Structure Analysis of Toner Market Transformed by Newly Introduced Chemically Prepared Toner"
3. September, 2009
"Structure Analysis of Toner And Related Market Facing an Emergence of Major CPT Manufacturers"
4. September, 2010
"Amid Dwindling Specialized Toner Manufacturers: Comprehensive Breakdown of Toner and Related Markets"
5. March, 2011
"Recovery from 3.11 on the Toner Industry Long Time Forecast for Toner and Related Market"
6. September, 2012
"Strategy of the Toner Industry in a Slow-growth Market"
7. September, 2013
"Forecast of the Toner Industry that Counts on Newly Emerging Countries"
8. September, 2014
"Forecast of the Toner Industry Lead by Ultrafine Particle Toner"
9. September, 2015
"Toner Industry Revitalizes the Market through the Provision of Value-added Toners"
10. October, 2016
"Outlook for the Toner Industry that Will Continue to Strive for Excellence in High-quality Toner Products"
11. October, 2017
"Future Prospects of the Toner Industry: A Call for Cost Competitiveness to Recreate the Market"
12. October, 2018
"The Future of the Toner Industry Challenged by Environmental Issues"