

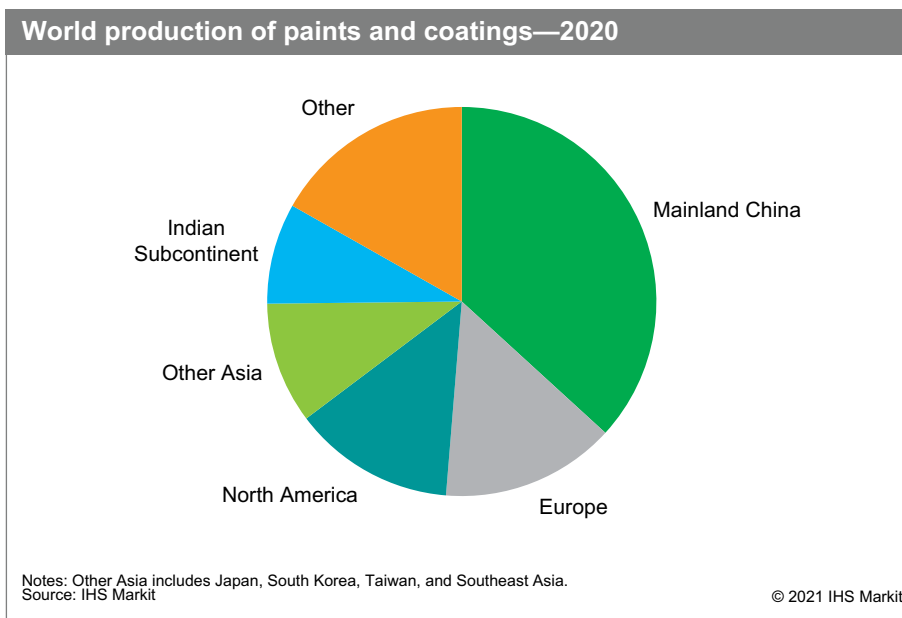
Paint and Coatings Industry Overview

June 2021

Abstract

The coatings industry is one of the most heavily regulated industries in the world, so producers have been forced to adopt low-solvent and solventless technologies in the past 40 years, and will continue to do so. The number of coatings producers is large, but most are regional producers, with only 10 or so large multinationals; however, most of the large multinationals have expanded operations in fast-growing areas like mainland China and India. The most noteworthy trend has been consolidation, especially among the largest producers.

The following pie chart shows world production of paints and coatings:



Production and consumption are nearly equal in each country, as trade is limited to relatively small quantities of high-value product. Demand in Asia continues to rise faster than elsewhere in the world, and the region now accounts for 55% of global consumption on a volume basis. Generally, coatings grow in tandem with the economy, so growth will continue to focus on the developing world.

Coatings provide two primary functions that are of considerable economic importance—decoration and protection. About 55% of the coatings produced worldwide are used to decorate and protect new construction as well as to maintain existing structures, including residential homes and apartments, public buildings, and plants and factories. Another 35% of the coatings are used to decorate and/or protect industrial products. Without coatings, product lives might be shortened drastically and many products would not even be marketable. Most of the remaining coatings, called “special purpose,” are

Contacts

IHS Markit Customer Care • CustomerCare@ihsmarkit.com

used for miscellaneous applications such as traffic paints, vehicle refinishing, high-performance coatings for industrial plants and equipment, and protection of marine structures and vessels.

The coatings industry in the United States, Western Europe, and Japan is mature and generally reflects the health of the economy, especially housing, construction, and transportation. Traditional growth patterns were interrupted in 2020 due to the COVID-19 pandemic. Demand for coatings in 2020 dropped slightly in the United States, rose slightly in Western Europe, and fell by about 10% in Japan. Each market is expected to grow in 2021, with average annual growth rates of 2% in the United States, 1.5–2% in Western Europe, and 2.2% in Japan in 2020–25.

In emerging markets, coatings are growing at a much faster rate. The best prospects for growth are mainland China (4% average annual growth rate during 2020–25), India (5.5%), Poland (3–4%), Turkey (2–3%), and Saudi Arabia (2–3%). Total global growth on average should be 3–4% per year. On a value basis, it is likely that growth will be even higher as a result of the increased production of relatively higher-value coatings. Most of the major multinational coatings producers have production in mainland China. The multinational producers should gain even more presence in the developing world as living standards increase and per capita consumption of coatings rises.

The major change that has taken place in the coatings industry over the last 40 years has been the adoption of new coating technologies. These new coating technologies include waterborne (thermosetting emulsion, colloidal dispersion, water-soluble) coatings, high-solids coatings, two-component systems, powder coatings, and radiation-curable coatings. Through the next five years, air pollution regulations will continue to be a driving force behind the adoption of new coating technologies; however, consumer preference is having a larger effect. For the architectural coatings market, waterbornes will likely continue to grow as consumers demand coatings that are free from odors and potentially hazardous raw materials.

In general, environmental regulations are becoming more stringent in all regions to limit emissions of volatile organic compounds (VOCs) and hazardous air pollutants (HAPs), not only in the industrialized world, but also in developing economies like mainland China. Energy conservation and rising solvent and raw material costs are also contributing factors; raw material costs account for 50–60% of the total production costs for coatings. The coatings industry is one of the larger consumers of solvents, which are mostly derived from petrochemical feedstocks and refinery operations. The coatings industry also uses a considerable quantity of nonpetrochemical feedstocks, such as pigments and additives, which are not very dependent on crude oil and gas prices. The nonpetrochemical portion of the feedstocks is approximately one-third, on a volume basis.

One new area of interest is nanotechnology, with tens of thousands of patents issued already just for the coatings industry. Very small ceramic or metallic particles can be added to paint formulations to modify specific properties (e.g., scratch, mar, wear, corrosion, and UV resistance) in highly specialized applications. The average size of nanoparticles is 10–70 nanometers, consisting of less than 6.5 million atoms. At these sizes, the ratio of surface area to mass becomes significant, giving the particles unique properties. For example, at 2 nanometers, the conductivity of metal particles changes and at 20 nanometers, the transparency of ceramic particles changes. At 20 nanometers, particles of gold turn red and their plasticity disappears.

For more detailed information, see the table of contents, shown below.

IHS Markit's Chemical Economics Handbook – *Paint and Coatings Industry Overview* is the comprehensive and trusted guide for anyone seeking information on this industry. This latest report details global and regional information, including



Global summary;
regional coverage



Producers with
annual capacities
and plant sites



Production figures
and trends



Consumption and
forecasts by end use
application



Manufacturing
processes and
environmental issues



Trade – imports
and exports

Key benefits

IHS Markit's Chemical Economics Handbook – *Paint and Coatings Industry Overview* has been compiled using primary interviews with key suppliers and organizations, and leading representatives from the industry in combination with IHS Markit's unparalleled access to upstream and downstream market intelligence and expert insights into industry dynamics, trade, and economics.

This report can help you

- Identify trends and driving forces influencing chemical markets
- Forecast and plan for future demand
- Understand the impact of competing materials
- Identify and evaluate potential customers and competitors
- Evaluate producers
- Track changing prices and trade movements
- Analyze the impact of feedstocks, regulations, and other factors on chemical profitability

Contents

Executive summary	8
Summary	9
Industry status	16
Introduction	31
Manufacturing processes	32
Technology	34
Environmental issues	42
Biorenewable raw materials	53
Supply and demand by region	56
United States	56
– Raw materials	56
– Producing companies	57
– Production	59
– Consumption	60
– Architectural coatings	61
– Product finishes	68
– Powder coatings	68
– Automotive	69
– Wood	72
– Metal containers	74
– Coil coatings	75
– Agricultural, construction, and equipment (ACE)	76
– Special-purpose coatings	77
– High-performance maintenance and marine paints	77
– Vehicle refinishes	79
– Highway and traffic markings	80
– Price	80
– Trade	83
Canada	84
Mexico	89
Central and South America	94
– Brazil	95
– Other Central and South America	99
– Argentina	99
– Chile	100
– Colombia	100
– Peru	101
– Uruguay	101
– Venezuela	101
– Central America	101

Europe	102
– Raw materials	102
– Producing companies	102
– Production	104
– Consumption	105
Western Europe	107
– Salient statistics	107
– Finland	108
– France	108
– Germany	110
– Italy	112
– Netherlands	115
– Norway	117
– Spain	117
– Sweden	119
– Switzerland	119
– United Kingdom	120
– Consumption	122
– Architectural coatings	122
– Product finishes	127
– Wood furniture, flooring, and fixtures	127
– Automotive OEM	128
– Powder coatings	130
– Coil coatings	131
– Metal containers	132
– Special-purpose coatings	132
– Anticorrosion coatings	132
– Vehicle refinishes	133
– Traffic paints	134
– Price	135
– Trade	139
Central and Eastern Europe	141
– Salient statistics	141
– Czechia	142
– Hungary	143
– Poland	144
– Romania	145
– Slovakia	145
– Slovenia	146
– Consumption	146
– Architectural coatings	146
– Product finishes	148
– Wood furniture, flooring, and fixtures	148

– Automotive OEM	149
– Powder coatings	150
– Coil coatings	150
– Anticorrosion coatings	150
Commonwealth of Independent States (CIS)	151
– Russia	151
– Producing companies	151
– Consumption	152
– Architectural coatings	154
– Automotive	154
– Wood coatings	155
– Anticorrosion coatings	156
– Powder coatings	156
– Coil coatings	157
– Trade	157
– Other CIS countries	157
– Azerbaijan	157
– Belarus	158
– Georgia	158
– Kazakhstan	158
– Ukraine	159
– Uzbekistan	160
Middle East	160
– Bahrain	161
– Iran	161
– Israel	162
– Jordan	162
– Lebanon	162
– Oman	163
– Qatar	163
– Saudi Arabia	163
– Turkey	165
– United Arab Emirates	168
– Yemen	169
Africa	169
– Algeria	169
– Angola	170
– Cameroon	170
– Egypt	170
– Ethiopia	171
– Ghana	171
– Kenya	171
– Libya	172

– Morocco	172
– Mozambique	173
– Namibia	173
– Nigeria	173
– South Africa	174
– Tanzania	175
– Tunisia	176
– Uganda	176
– Zambia	176
– Zimbabwe	177
Mainland China	177
– Raw materials	177
– Producing companies	178
– Salient statistics	187
– Consumption	188
– Architectural	189
– Industrial	192
– Protective/marine/container	192
– Wood finishes	194
– Powder coatings	194
– Automotive	195
– Automotive refinishing	198
– Coil coatings	199
– Metal containers	199
– High-speed rail	200
– Highway and traffic markings	200
– Trade	201
Japan	201
– Raw materials	201
– Producing companies	202
– Salient statistics	208
– Consumption	210
– Architectural	212
– Automotive OEM	214
– Primers	215
– Primer-surfacers	215
– Basecoat	215
– Clear coats	216
– Bumper coating and interior coating	216
– Functional	216
– Automotive refinish	216
– Metal products	217
– Can coatings	217

– Powder coatings	218
– Marine	218
– Heavy-duty maintenance coatings	219
– Machinery/railroads	219
– Wood finishes	220
– Other	220
– Price	220
– Trade	223
South Korea	223
– Producing companies	223
– Salient statistics	226
– Consumption	227
– Price	229
Taiwan	229
Indian Subcontinent	231
– India	231
– Producing companies	231
– Salient statistics	237
– Consumption	239
– Other Indian Subcontinent	240
– Salient statistics	240
– Bangladesh	240
– Pakistan	241
– Sri Lanka	241
Southeast Asia	241
– Indonesia	245
– Malaysia	246
– Myanmar	246
– Philippines	247
– Singapore	247
– Thailand	247
– Vietnam	249
– Other Southeast Asia	250
Oceania	250
Additional resources	255
Revisions	256
Data Workbook	257

IHS Markit Customer Care

CustomerCare@ihsmarkit.com

Asia and the Pacific Rim

Japan: +81 3 6262 1887

Asia Pacific: +604 291 3600

Europe, Middle East, and Africa: +44 (0) 1344 328 300

Americas: +1 800 447 2273

Disclaimer

The information contained in this report is confidential. Any unauthorized use, disclosure, reproduction, or dissemination, in full or in part, in any media or by any means, without the prior written permission of IHS Markit or any of its affiliates ("IHS Markit") is strictly prohibited. IHS Markit owns all IHS Markit logos and trade names contained in this report that are subject to license. Opinions, statements, estimates, and projections in this report (including other media) are solely those of the individual author(s) at the time of writing and do not necessarily reflect the opinions of IHS Markit. Neither IHS Markit nor the author(s) has any obligation to update this report in the event that any content, opinion, statement, estimate, or projection (collectively, "information") changes or subsequently becomes inaccurate. IHS Markit makes no warranty, expressed or implied, as to the accuracy, completeness, or timeliness of any information in this report, and shall not in any way be liable to any recipient for any inaccuracies or omissions. Without limiting the foregoing, IHS Markit shall have no liability whatsoever to any recipient, whether in contract, in tort (including negligence), under warranty, under statute or otherwise, in respect of any loss or damage suffered by any recipient as a result of or in connection with any information provided, or any course of action determined, by it or any third party, whether or not based on any information provided. The inclusion of a link to an external website by IHS Markit should not be understood to be an endorsement of that website or the site's owners (or their products/services). IHS Markit is not responsible for either the content or output of external websites. Copyright © 2021, IHS Markit®. All rights reserved and all intellectual property rights are retained by IHS Markit.

