





ABOUT THE COUNCIL

For nearly 30 years, the World Coatings Council – formerly the International Paint and Printing Ink Council (IPPIC) – has provided a forum for exchange and cooperation on international issues and priorities facing the global coatings industry. Since its inception in 1992, the World Coatings Council has become the leading representative of the coatings industry worldwide.

In 2005 the council was granted non-governmental organization (NGO) status from the United Nations Economic and Social Council, which empowers the World Coatings Council to participate with and highlight international industry issues before the UN and its affiliated organizations. Through its global advocacy efforts, the council follows and participates in the International Maritime Organization, UN Subcommittee on the Transport of Dangerous Goods, UN Subcommittee on Globally Harmonized System for Labeling, World Health Organization, and the UN Environment Program.

Through the years, the council has grown, adding members of paint and printing ink associations representing Australia, Brazil, Canada, China, the European Union, France, Germany, Japan, Mexico, New Zealand, South Africa, Turkey, the United Kingdom, and the United States, signifying over 90 percent of paint and coatings global sales and volume.

In 2019, the name of the International Paint and Printing Ink Council was changed to the World Coatings Council to more readily reflect the organization's enhanced focus on coatings globally.

World Coatings Council meetings are held once a year, with the meeting site rotating among the various member countries. Monthly calls are conducted to discuss specific issues of interest. The role of Secretariat is served by the American Coatings Association.

ROLE & MISSION

Common concerns and matters facing the coatings industry on a global level have increased significantly. While it is a constant challenge for each individual country to manage the myriad of domestic regulations, the World Coatings Council aims to improve communication and to coordinate industry policy on matters of international concern. The council does not set policy; rather, it acts as a focal point for monitoring and communicating specified international issues; develops recommendations and analyses on selected issues of common interest to the participating organizations; and seeks to derive a common position in conjunction with the governing bodies of the respective participants.

As such, the council's mission is to:

- Represent the coatings industry on key international issues;
- Monitor and communicate issues of importance to the coatings industry;
- Promote product stewardship and environmental responsibility through implementation of principles and practices by coatings companies and associations on a worldwide basis:
- Develop policies and positions on issues of common interest to the participating organizations; and
- Serve as technical expert for the paint and coatings industry before the United Nations and related organizations.

In addition, the World Coatings Council is a premier sponsor of The World Coatings Summit. This biennial conference provides a unique opportunity for global coatings industry executives to gather in one place for interactive sessions that address a wide range of topics, from business strategy and economic forecasts to sustainability and new technology.

MEMBERS

The council's 14 industry member associations bolster the council's standing around the world. The council is comprised of the following members.

American Coatings Association (ACA)

Association of the Paint Industry in Turkey (BOSAD)

Australian Paint Manufacturers' Federation (APMF)

Brazilian Paint Manufacturers Association (ABRAFATI)

British Coatings Federation (BCF)

Canadian Paint and Coatings Association (CPCA)

China National Coatings Industry Association (CNCIA)

European Council of the Paint, Printing Ink and Artists' Colours Industry (CEPE)

French Paints, Printing Inks, Artist Colours and Adhesives Association (FIPEC)

German Paint and Printing Ink Industry Association (VdL)

Japan Paint Manufacturers Association (JPMA)

Mexican Paint and Printing Ink Manufacturers' Association (ANAFAPYT)

New Zealand Paint Manufacturers Association (NZPMA)

South African Paint Manufacturers Association (SAPMA)



Sustainability

With the advancement of the UN Sustainable Development Goals (SDGs), and a number of reporting schemes for sustainable development related metrics, the World Coatings Council continues to keep pace, expanding its issue management activities in support of the UN SDG, "People, Planet, and Prosperity." In fact, most council member associations have established programs that demonstrate the industry's role in supporting sustainable development, a key factor in affirming the essential nature of the industry and its products. The World Coatings Council will soon release its inaugural global industry Sustainability Report to highlight how the council can work collectively to develop meaningful programs and practices that affirm and advance the UN SDGs.

The global paint, coatings and printing ink industry has a long history of sustainable practices and providing products that protect, sustain, and add value to the built environment, infrastructure, and life's everyday objects. The industry continues to reduce its environmental footprint and embrace sustainability by increasing resource recovery, reducing and eliminating hazardous emissions, offering products formulated to meet specific safety requirements. It is also supportive of efforts to conduct life-cycle analyses that evaluate all of the relevant environmental impacts and benefits from preserving and protecting the global infrastructure. In addition, the industry also addresses its social responsibility by creating health and safety programs to protect the workforce that manufactures its products and the communities that use paints, coatings, and printing inks.

Global Alliance to Eliminate Lead Paint

The World Coatings Council is an active participant in the Global Alliance to Eliminate Lead Paint (aka Lead Paint Alliance or LPA), which is overseen by a joint secretariat from the United Nations Environmental Program (UNEP) and the World Health Organization (WHO). The LPA is a



voluntary collaborative initiative focused on catalyzing the efforts of a diverse range of stakeholders to achieve international goals to prevent children's exposure to lead from paint and to minimize occupational exposures to lead paint. The LPA is focused on developing countries that have not yet put in place controls on lead use in paint.

The LPA includes over 100 entities — NGOs, governmental agencies, intergovernmental organizations, educational centers, and industry — that share an interest in lead-risk reduction. World Coatings Council member associations support legal restrictions on lead use in paints where there is the potential for exposure and health risks, especially to children.

The World Coatings Council has been a global voice noting the effectiveness of lead-use restrictions that are already in place in many jurisdictions around the world and recommends their widespread adoption by authorities not currently regulating the use of lead in paint. To this end, the council supports the UN's Lead Paint Alliance "Model Law" as a useful starting point for both government and industry to collaborate on developing restrictions that ensure widespread and verifiable compliance.

The World Coatings Council has repeatedly pledged in-kind resources to support the UN Global Environment Facility (GEF) to advance this initiative in countries that do not have lead standards.

Biocides for Product Preservation

Biocides in paints and coatings are used to prevent microbial growth and degradation during manufacturing and product shelf-life. They also ensure the product does not spoil before being used, and also protect the paint film after application. The term "biocides" encompasses a wide range of materials that control the growth of unwanted, deleterious micro-organisms in the environment.

Increasingly, low-VOC waterborne coatings require the use of "in-can" preservatives. However, the expanding use of biocides in construction products, including paints and coatings, has resulted in increased scrutiny of their inherent safety by regulatory bodies worldwide. The European Union, Canada, and the United States are all currently evaluating several biocides used in paints and coatings for risk to human health and the environment.

The World Coatings Council has established an advocacy initiative to ensure continued availability of these critical raw materials around the world to preserve paint in the container, protect the painted surface, and maintain desired conditions.

The use of biocides for in-can preservation and microbial attacks is critical. In fact, over the past 75 years, market growth and public acceptance of waterborne paints and coatings has only been possible with the use of biocides. In the efforts to protect waterborne paints from microbial growth, manufacturers have enhanced plant hygiene and developed work practice controls that ensure product integrity throughout the supply chain. These efforts are part of a holistic approach to microbial control that ensures protection, but also optimizes the use of biocides to a level that is necessary to do the job.

Specialized uses of biocides in certain paints and coatings are necessary to protect the substrates to which they are applied. Wood preservative materials are used to suspend the growth of microorganisms and other lifeforms that are associated with the destruction of wood and wood structures. Marine and offshore protective coatings are used to reduce the

growth of marine
microorganism
and associated
biofilms
that degrade
vessels and steel
structures, and slow
their propulsion through
the water. Both uses
are highly regulated and face

increased and stringent regulatory controls whereby end users, paint manufacturers, and the producers of the biocides (i.e., active ingredients) work closely with government agencies to ensure safe use, and support new ideas that help advance consumer protection and reinforce safe use of biocides in paints and coatings.



To ensure consistency between the regulatory systems in every country and every mode for the transport of dangerous goods, the United Nations has developed mechanisms for the harmonization of transport conditions for all modes for transport. This harmonization occurs in the SubCommittee of Experts on the Transport of Dangerous Goods (UNSCETDG). The World Coatings Council is proactively engaged in efforts to harmonize the model regulations to ensure efficiency and cost-effectiveness for cross-border and multi-modal shipments of paint and allied products.

The council participates in the UNSCETDG's twice yearly meetings, where proposals from governmental and non-governmental delegations that will be incorporated into the UN Model Regulations are considered. The World Coatings Council regularly submits proposals, testifies on other delegations' proposals, and participates in the working groups to effectively represent the industry's input and interests in these matters.



Titanium Dioxide Classification in Europe

On Feb. 18, 2020, the European Commission published a regulation classifying titanium dioxide (${\rm TiO_2}$) containing greater than 1% respirable dust content *by inhalation* as a Category 2 [Animal] Carcinogen. This action was the culmination of a more than two-year effort by the Commission and European Chemicals Agency (ECHA) under the EU's chemicals classification and labeling regulations – REACH and CLP. The requirements for labeling in the new regulation will be enforced after Oct. 1, 2021.

The final Category 2 cancer hazard classification by respirable dust inhalation has been focused on conveying a specific hazard where respirable dust exposures occur (i.e., exposure to particles less than 10 μ m in diameter). For TiO₂ in formulated products – like liquid paints – this distinction mitigates the required hazard warnings somewhat; it does, however, retain them for powder coatings since they may contain more than 1% of respirable dust-size particles. Compliance efforts are underway to implement the required hazard and precautionary labeling for products containing TiO₂ offered for sale and use in the EU, and amend worker hazard communication programs to reinforce the new classification and its impact on industrial hygiene practice.

Throughout the nearly multi-year process leading to ECHA's final classification and since then, World Coatings Council members actively engaged their respective trade agencies, alerting them to the adverse consequences and potential technical barriers to trade arising from the EU action for this widely used material. In addition, the council and its members have supported the EU-based paint industry associations, as well as the Titanium Dioxide Manufacturers

Association, which have worked to share critical information on the underlying science and industry impacts and challenge the classification.

Marine Coatings

The UN's International Maritime Organization (IMO) is the global standard-setting authority that regulates the safety, security, and environmental performance of international shipping and commerce. The IMO focuses its work on environmental issues particularly affecting the marine environment. Its main role is to create a governing international framework for the shipping industry that is fair and effective, and which is universally adopted and implemented.

The IMO's regulatory reach extends to coatings used in the marine environment. Not only does the IMO address antifouling coatings under the International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS Convention), but it has also established demanding international requirements for certain protective coatings through the Performance Standards for Protective Coatings (PSPC).

The World Coatings Council has two committees dedicated to issues affecting marine coatings: the Antifouling Coatings Committee (AFCC) and Marine Coatings Technical Committee (MCTC). These committees are comprised of international companies that manufacture, supply, and sell marine coatings and their biocides worldwide. Through its NGO status at the IMO, the council's two committees participate in the IMO meetings to support the development of technically sound regulations for marine coatings around the world.

At the IMO, the World Coatings Council primarily provides technical advice and expertise on critical issues pertaining to the AFS Convention, Biofouling Guidelines, PSPC, and the International Convention for the Control and Management of Ships' Ballast Water and Sediments (Ballast Water Management Convention).

Additionally, the World Coatings Council is a strategic partner to the GloFouling Partnerships project.

The project is a collaboration between the Global Environment Facility, the United Nations Development Program (UNDP) and IMO, and is intended to help protect marine ecosystems from the negative effects of invasive aquatic species — or biofouling — via ship

hulls. The GloFouling Partnerships project focuses on preventing the transfer of aquatic species through biofouling, in other words, the build-up of aquatic organisms on a ships' underwater hull and structures. In its strategic partnership role, the council provides industry expertise and other support to the project to help advance its goals.

Responsible Mica Initiative (RMI)

The Responsible Mica Initiative (RMI) is a consortium of companies and NGO partners implementing strategies to assure fair labor practices in production of natural mica to produce "effect pigments" used in cosmetics and some paints. The organization was formed in 2017, following the enduring interest of some members who had independently initiated programs to address child labor in the mica supply chain. Interest was further galvanized after a report published by the Dutch NGO TDH (Terre des Hommes) identified India as the largest global supply source of natural mica produced with child labor. TDH's report called for industries that use mica to work constructively in mica-producing regions to develop a comprehensive strategy to address labor practices, while continuing to source from these regions to provide income in a low-income area and not abandon these producers, which could create further economic hardship.

The World Coatings Council has been a participant in RMI since its founding to align efforts with the values embraced by the entire supply chain, extending to endusers of paints and coatings.

With support from member companies, RMI developed a strategy and continues to implement programs that allow for improvements in supply-chain management for natural mica by working with mines, mica processing units and state and local authorities, while addressing underlying social conditions leading to reliance on child labor in affected regions. In addition to working with regional upstream actors in the mica supply chain, RMI operates programs in these regions to establish education, alternative employment, wage equality for adults, access to government social welfare programs and other programs. In 2018, the UN Forum on Business and Human Rights recognized RMI's program as the most innovative and inspiring approach to implementing the UN

Guiding Principles on Business and Human Rights. Notably, as RMI expands programs in India, it also began expanding operations into Madagascar under a consortium led by UNDP

Madagascar, UNICEF Madagascar, and Terre des Hommes Netherlands. The U.S. Department of Labor recently selected RMI to carry out a four-and-a-half-year, \$4.5 million project to address child labor in the mica supply chain in Madagascar.

Globally Harmonized System of Classification And Labeling of Chemicals

The UN created the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) to ensure a consistent, global understanding of hazards caused by chemicals. The UN GHS is an international system that addresses the classification of chemicals by types of hazard and harmonizes hazard communication elements – including labels and safety data sheets – and is used by many countries as the basis for labeling regulations. Harmonization occurs biennially during the meeting of the UN Subcommittee of Experts on the GHS (UNSCEGHS).

The World Coatings Council is proactively engaged in efforts to promote hazard communication harmonization to ensure effective and technically sound classification of chemicals and labeling requirements. As such, the council participates in the biannual meetings of the UNSCEGHS, working with the environmental, health, and safety representatives from member countries who work on each revision of the GHS. The council often submits papers and input to support its member associations' viewpoints on certain technical issues before the UNSCEGHS. Input from World Coatings Council representatives has been well-received by the subcommittee.



Microplastics in Aquatic Environments

Environmental researchers are focusing efforts on new categories of waste found in aquatic environments, in some cases arising from use of a variety of plastic materials in formulations for consumer and industrial products. The first major category is the so-called "primary microplastics," which refer to intentionally-added materials such as "micro-beads" or "microfibers" that provide certain desirable performance properties but without any attendant release to the environment as they become embedded in the applied paint film.

The other major category is known as "secondary microplastics," which have yet to be formally universally defined, but may best be described as the "polymeric fragments" released into the environment over time from plastic-containing products, largely through the degradation of larger (i.e., macroplastic) materials. These secondary microplastics include releases from synthetic fibers in clothing (primarily from the laundering process), weathering of macroplastic wastes, degradation of polymeric surfaces (like paint) on exterior substrates, and wastewater streams that may receive discharges and/or releases of secondary microplastics from all sources.

In general, paint is a resinous product intended to provide a continuous protective or decorative film to a substrate, imparting desirable properties that last for a long time. Extensive efforts are made to ensure economical transfer efficiency and to minimize loss of paint product to the environment during application and subsequent clean-up of application equipment (i.e. brushes and rollers).

Numerous studies on the environmental prevalence and fate of secondary microplastics have been published, but differ widely in how they have collected, characterized, and quantified the sources and pathways of secondary microplastic releases.

The World Coatings Council maintains that all known mitigating factors need to be considered in any effort

to quantify the potential release of microplastics from products. This is especially true for academic researchers, government agencies and advocacy groups as they work to address concerns regarding microplastics in the environment. As such, the global paint industry is endeavoring to advance its understanding of the issue and its commitment to product stewardship, and is seeking additional information about antifouling polymers that are designed to dissolve in seawater.

Post-Consumer Paint Stewardship Programs

When leftover consumer household latex and oilbased paint – known as post-consumer paint – goes unused, management of this waste stream has proven to be difficult for consumers and expensive for local government agencies.

However, the paint and coatings industry across the world has proactively responded to this challenge by developing stewardship programs to collect leftover consumer paint and manage the end-of-life of this waste stream. These programs include Product Care in several Canadian provinces, PaintCare in the United States, Paintback in Australia, EcoDDS in France, and soon PaintCare in the United Kingdom. These programs provide an industry-led system for the management of postconsumer architectural paint in an environmentally sound manner that includes collection, transportation, processing, recycling, and proper disposal.



Product Care, which originally started in British Columbia in 1994, is now operating in eight Canadian provinces. In 2019 alone, the program recovered over 10.3 million liters (2.7 million gallons) of paint. The program provides consumers access to locations where they can bring various types of leftover paint, including latex and oil-based paint, primers, coatings, aerosols, and empty paint cans (plastic, metal, and composite). More information about Product Care is available at www.productcare.org/products/paint.



PaintCare, which launched in Oregon in 2009, has since been adopted via legislation in 10 other U.S. states and the District of Columbia. As of July 1, 2021, PaintCare had collected over 50 million gallons of paint — collecting approximately 600,000 gallons of post-consumer paint per month consisting of about 75% latex paint, and the remainder solvent-based paints. The program has already established more than 2,000 year-round drop off sites across all its jurisdictional programs, and saved millions of dollars annually for local and state governments. More information about PaintCare is available at www.paintcare.org.



Australia's Paintback program, which started in 2016, has collected and treated over 20 million kilograms of leftover paint and packaging. The program offers free drop-off of unwanted paint and packaging at over 160 locations across Australia. More information about Paintback is available at www.paintback.com.au.



The British Coatings Federation (BCF) is developing the voluntary PaintCare scheme in the United Kingdom. An estimated 55 million liters of leftover decorative paint are generated each year in the United Kingdom. Most of it finds its way into the domestic waste stream; it then either goes into landfill or gets separated out and disposed of as hazardous waste at considerable cost to local authorities. **PaintCare UK** aims to create a national scheme for leftover decorative paint in the United Kingdom, where it can be reused or remanufactured instead of landfilled, creating a 'circular economy' model. The BCF is currently seeking government approval, with potential pilot launch in 2022. More information about PaintCare UK is available at www.paintcare.org.uk/.



EcoDDS is a non-profit company started in France in April 2021 with a mission to encourage sorting, collection, and treatment of certain chemical-containing waste. EcoDDS works in collaboration with its member companies, some 48 consumer product manufacturing and distribution companies, in accordance with the principle of Extended Producer Responsibility, in doing so they concretely fulfill their commitment to collect the used products that they have placed on the market, including paints. More information about EcoDDS is available at www.ecodds.com/.

The success of these programs is due in part to the World

Coatings Council members' close cooperation and information sharing of what came before and how the programs continue to grow.



Three general categories of coatings make up the industry's markets: Architectural Coatings; Industrial Coatings; and Special Purpose Coatings.

Architectural Coatings are used to preserve, protect, and beautify the interior and exterior surfaces of residential, commercial, institutional buildings — including hospitals and healthcare facilities — and industrial buildings and factories.

Industrial Coatings applied in factory settings are known as industrial original equipment manufacturer or OEM Coatings. These coatings provide functional properties that are crucial to the performance and durability of a wide assortment of industrial, transportation, and durable consumer products. They include finishes for medical equipment; food service products like cans, jars, and packaging; automobiles, buses, and transportation equipment; appliances; wood and non-wood furniture; metal building products; metal container and closure finishes; paper, and much more. From this non-exhaustive list, it's apparent that a host of independent and diverse industries depend on coatings, especially OEM coatings, for their production.

Special Purpose Coatings cover an array of divergent coatings that serve a specific purpose. The one unifying characteristic is that these coatings tend to be "field-applied," as opposed to being applied in a factory setting. This industry segment includes marine paints; high performance maintenance coatings; military-specified coatings that create a hardening effect for blast mitigation in buildings, including embassies and defense installations; automotive refinish paints; traffic and highway markings; aerosol paints; roof coatings and multicolor paints and metallic paints.

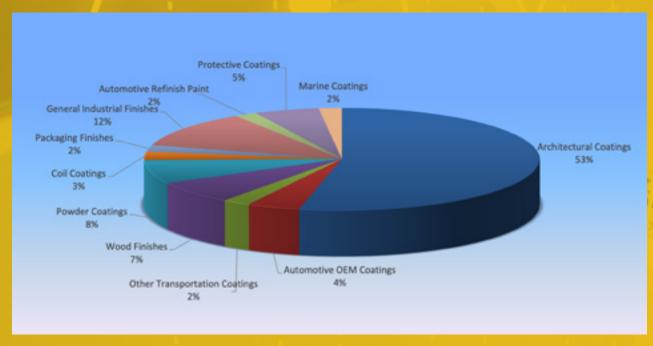






Global End-Use Market Share (2019)

Put simply, every manufacturing process that results in the production of a non-liquid product includes a process for coating the finished good, making the coatings industry an integral part of and partner to myriad larger manufacturing and end-use industries.



Source: The ChemQuest Group, Inc.

GLOBAL MARKET ANALYSIS

To further serve its membership, the council produces the quintennial *Global Market Analysis for the Paint & Coatings Industry*. The first edition of the council's global market analysis was published in 2008 to provide in-depth insight into the primary categories of coatings, their many sub-segments, and the competitive landscape. Since then, the study has grown in its solid market data and projections, which remains in demand and well received by industry manufacturers, end users, raw materials suppliers, as well as external groups and investors.

The most recent *Global Market Analysis for the Paint & Coatings Industry (2019-2024)* provides a comprehensive view of the global paint and coatings market, including the fundamentals of the 11 market and five regional segments – North America, Latin America, Europe, Middle East & Africa, and Asia Pacific.

Specifically, the study provides:

- Sector analysis of regional demand (volume/value), competitive landscape, end uses, and 5-year CAGR volume/value forecasts;
- Dynamics underlying those segments economic and trade influences; technology drivers; user trends; key buying factors, and more;
- New technology and market opportunities, and current feedstock and raw material trends; and
- Illustrates the relationship between customer production and paint usage.

The Global Market Analysis for the Paint & Coatings Industry (2019-2024) presents qualitative and quantitative data in an easy-to-process PowerPoint style, with dynamic chart design.



FOR MORE INFORMATION

For more information about the World Coatings Council, visit **www.worldcoatingscouncil.org**, or contact the council Secretariat at **worldcoatings@paint.org**.



- 1. American Coatings Association (ACA)
- 2. Association of the Paint Industry in Turkey (BOSAD)
- 3. Australian Paint Manufacturers' Federation (APMF)
- 4. Brazilian Paint Manufacturers Association (ABRAFATI)
- 5. British Coatings Federation (BCF)
- 6. Canadian Paint and Coatings Association (CPCA)
- 7. China National Coatings Industry Association (CNCIA)
- 8. European Council of the Paint, Printing Ink and Artists' Colours Industry (CEPE)
- 9. French Paints, Printing Inks, Artist Colours and Adhesives Association (FIPEC)
- 10. German Paint and Printing Ink Industry Association (VdL)
- 11. Japan Paint Manufacturers Association (JPMA)
- 12. Mexican Paint and Printing Ink Manufacturers' Association (ANAFAPYT)
- 13. New Zealand Paint Manufacturers Association (NZPMA)
- 14. South African Paint Manufacturers Association (SAPMA)