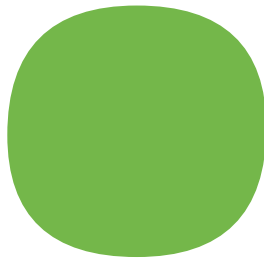
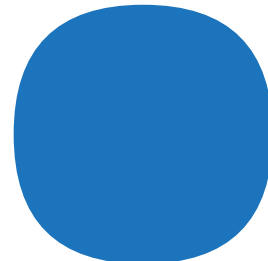
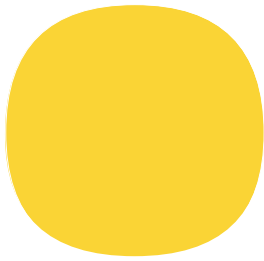


ACA
Sustainability Report
2020



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Message from ACA's President

This 2020 ACA Sustainability Report highlights the paint and coatings industry's contribution to a more sustainable future.

We are proud of industry's ongoing efforts to advance technologies in coating science, while minimizing impacts on human health and the environment. Our industry has taken numerous steps to reduce waste, water use and air emissions, and to promote product and environmental stewardship. From sourcing renewable raw materials, to improving products and processes through advanced manufacturing, just-in-time distribution and the use of supply-chain management systems, the industry's commitment to efficiency and Sustainability is evident and ever-growing.

Innovation in industry research and development (R&D) and the continued trend toward water-based coatings, powder coatings, high-solid ultraviolet (UV) cure coatings and lower-emitting coating products, among many others, have contributed to significant reductions in hazardous air pollutants (HAPs) and volatile organic compound (VOC) emissions from production.

Coatings preserve materials and make products more sustainable through enhanced durability and increased performance properties. ACA is dedicated to actively advocating on behalf of the paint and coatings industry to educate legislators and regulators on the sustainable benefits of coatings. ACA hosts an annual "Paint the Hill" day to educate our nation's leaders about the U.S. paint and coatings industry's technological innovation, environmental strides and sustainable products.

This report shares examples of the critical role coatings play in contributing to the United Nations Sustainable Development Goals, showcases the industry's environmental progress, and spotlights our own PaintCare® paint product stewardship program. I hope you will find the report useful and informative. Additional information on sustainability in our industry is available on the ACA website at www.paint.org/sustainability.



Andy Doyle
American Coatings Association
President/CEO

Introduction

The American Coatings Association (ACA) is a voluntary, nonprofit trade association working to advance the needs of the U.S. paint and coatings industry and the professionals who work in it. ACA represents some 250 paint and coatings manufacturers and distributors, and raw materials suppliers, as well as the technical professionals who work within the industry. ACA serves as an advocate and ally for members on legislative, regulatory and judicial issues, and provides forums for the advancement and promotion of the industry through educational and professional programs and services.

The association promotes policies to enable its members to bring innovative, effective and safe products to market, so that they may protect and preserve the surfaces to which they are applied. As such, Sustainability is a focus for ACA's various committees and initiatives.

What's more, industry products are an integral part of our world — almost every human-made product has a coating that is necessary to protect it and maintain its value. ACA members manufacture architectural, industrial (factory-applied) and specialty purpose coatings, including automotive refinish, traffic marking and marine coatings.

The universe and utility of paints and coatings extends far beyond providing aesthetic appeal by adding color to the materials they coat; they also extend the useful life of everyday products, as well as our precious infrastructure, by acting as a protective barrier. And there are manifold environmental benefits from this: coatings help save energy by keeping buildings cooler; play an integral part in the use of wind energy; contribute to reduction in CO₂ emissions, and keep machinery out of landfills.

These environmental advances are possible because coatings are engineered to perform well under varied conditions, making Sustainability not only possible, but efficient, and with minimized ecological burdens.

Coatings Protect. Coatings Preserve. Coatings Provide. This report offers examples of how coatings and the U.S. paint and coatings industry undertake Sustainability.



Sustainability in the Paint and Coatings Industry

What is Sustainability?

In 1987, the United Nations Brundtland Commission defined sustainability as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.” The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. The UN established 17 Sustainable Development Goals (SDGs) as an urgent call for action by all countries, and defined Sustainability as a concept that unifies three central pillars: environmental protection, social equality, and economic improvement.

The 2020 ACA Sustainability Report focuses on the coatings industry’s Sustainability efforts as framed by five specific UN SDGs:

- » Good Health and Well-Being (UN SDG #3)
- » Decent Work and Economic Growth (UN SDG #8)
- » Industry, Innovation and Infrastructure (UN SDG #9)
- » Responsible Consumption and Production (UN SDG #12)
- » Partnerships for the Goals (UN SDG #17)

Our industry’s Sustainability commitment is highlighted by the real efforts industry undertakes, guided by these UN SDG principles. In coordination with member companies, ACA has implemented programs and initiatives to address these goals and fulfill its Sustainability performance, detailed in this report.



Innovation Leads To Environmental Improvement

UN SDG #9: Industry Innovation and Infrastructure

The paint and coatings industry continues to advance technologies that protect infrastructure from corrosion, increase energy efficiency by using innovative coatings designed to naturally cool buildings, and protect ecosystems by preventing the transfer of invasive species in our oceans.

Here are but a few examples.

Marine Coatings

Marine paints and coatings are applied to commercial and military ships — for both salt and fresh water — fixed and floating marine structures such as offshore oil rigs, and recreational boats and yachts. Specific areas of marine vessels and yachts require specially formulated marine coatings, called antifouling coatings, for use above and below the waterline. These coatings, which are highly engineered and subject to intense regulation, serve a dual purpose: they help reduce the growth of marine organisms on immersed areas of ships, and therefore reduce “drag,” greatly minimizing the ship’s energy and fuel consumption.

Antifouling coatings carry tremendous eco-efficiency benefits: when applied to tankers, bulk cargo and other vessel types, they can reduce greenhouse gas and other emissions by an average of 9% — no small feat, since shipping counts for an estimated 2-4% of global greenhouse gas emissions. These coatings also actively prevent the harmful transfer of invasive aquatic species to different ocean ecosystems.



“ Antifouling coatings...when applied to tankers, bulk cargo and other vessel types, ... can reduce greenhouse gas and other emissions by an average of 9% ”

Energy Applications

Coatings are essential for renewable energy generation. Anti-reflective coatings applied to solar panels increase the amount of light passing through the panels, ultimately generating more solar power. Protective coatings designed for wind turbine blades promote fast drying and provide UV and weathering resistance, keeping blades rotating in challenging conditions from ridgelines to offshore sites. Electrical insulation coatings help disperse heat in electric motors and transformers, which can enable them to increase their efficiency by operating at higher temperatures.

Cool Coatings Technology

Coatings provide value by enhancing the ability of commercial buildings and homes to regulate temperature, leading to a reduction in energy usage. For example, cool roof coatings can be a cost-effective way to improve energy efficiency in existing buildings. Roofs with cool roof coatings can be as much as 100°F cooler than roofs covered with traditional, dark-colored roofing materials, demonstrating energy savings of as much as 10-70%, according to U.S. EPA.

Paint and Primer in One

Many architectural paints — both interior and exterior — are now paint and primer in one product, which allows for a paint job with fewer coats, translating to greater efficiency and environmental advantages. These combinations are designed to provide a high-quality application that is more durable and lasts longer, thereby reducing the frequency for repainting or multiple applications.

Automotive Monocoat Process

During automotive manufacturing, some vehicles are now finished with a two-wet monocoat paint process. A quick-drying primer coat and color coating is painted on the vehicle and dried in an enamel oven. This streamlined manufacturing process eliminates the need for a third, clear protective coat since the monocoat is formulated with the same protection properties. This technology results in more durable paint, uses less energy and water, and reduces CO₂ and particulate emissions compared with conventional paint processes.



ACA Product Category Rules

ACA's Sustainability Committee has been actively developing Product Category Rules (PCR). The committee has developed a PCR for both Architectural Coatings and Resinous Floor Coatings, and is currently developing a PCR for Powder Coatings. A PCR provides an agreed-upon framework for measuring the environmental impacts of a product based on a defined set of criteria, which allows manufacturers to conduct life-cycle assessments (LCA) of their products in a standardized way, and publish this information in an Environmental Product Declaration (EPD), if they so choose.


The utility of the PCR for Architectural Coatings, for instance, is timely and considerable, since decision makers are increasingly considering information about the life-cycle impacts of products when selecting which products they choose to sell, specify, or use. Retailers, standard-setting bodies, and consumers are requiring information or giving favorable status to products and brands able to describe their life-cycle impacts and benefits.

Sustainability guidelines and green certification programs are also giving preferential treatment to products with verified EPDs. The newest version of the Leadership in Energy and Environmental Design (LEED) green building rating system rewards construction projects for using materials for which an EPD is provided, and other green building schemes relied on by the federal government are following suit.

Those are but two examples of the growing importance and demand for EPDs; but consider too, that LCA results can be used to demonstrate performance attributes of products, including durability. LCA also provides paint and coating manufacturers with the opportunity to exhibit improvements in resource efficiency across the supply chain.

ACA has made and will continue to make its PCRs available for free download, as well as explore additional market segments for development.





ACA Sustainability Program for Architectural Coatings

The ACA Sustainability Committee is developing a third-party, multi-attribute Sustainability Program for Architectural Coatings. The program will use a life-cycle approach to evaluate the environmental impacts of architectural coatings on the environment and provide transparency to the public on these impacts. The program will create a consensus-based framework that aims to gather and analyze industry performance metrics; outline and encourage corporate social responsibility; identify and communicate environmentally preferable products; and provide market recognition for conforming products and manufacturers.

The ACA Sustainability Program for Architectural Coatings will work in tandem with the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) programs — the most renowned Green Building program in the United States — to recognize ACA members' products to achieve maximum credits due to their sustainable attributes.



Responsible Production & Recycling

UN SDG #12: Responsible Production

PaintCare

Achieving economic growth and sustainable development requires that we urgently reduce our ecological footprint by changing the way we produce and consume goods and resources. The efficient management of our shared natural resources, and the way we dispose of toxic waste and pollutants, are important targets to achieve this goal. Encouraging industries, businesses and consumers to recycle and reduce waste is equally important.

To help manage post-consumer architectural paint and coatings, ACA created a non-profit program — PaintCare — that provides public education, translating the three R's of responsible waste management. The message, Reduce, Reuse, and Recycle, encourages the public to paint smarter: "Buy right. Use it up. Recycle the rest." This includes tips on consulting with paint retailers to plan the right amount of paint for the job; extending the life of unused paint by storing it properly and making the most of whatever quantities are left; finding people and agencies potentially interested in the remaining paint; and dropping off leftover paint with PaintCare's partner sites around the country for recycling and management.



10 YEARS OF PAINT STEWARDSHIP

PaintCare facilitates this recycling and management of leftover paint, and in just 10 years has had remarkable success:

PROGRAM STATS, TO DATE

11

States and District of Columbia have enacted laws to establish PaintCare in their jurisdictions

39+ million

gallons of post-consumer paint collected

591,000

gallons of paint collected each month (estimate) in nine programs

4,593

HHW and other events, including

206

PaintCare-run events

3,597

Large Volume Pickups

1,765

Year-Round Paint Drop-off Sites

208

Registered Manufacturers

97.7 %

PaintCare maintains year-round sites within 15 miles of 97.7% of the combined populations of its program state





Improving Air Emissions

UN SDG #3: Good Health and Well-Being

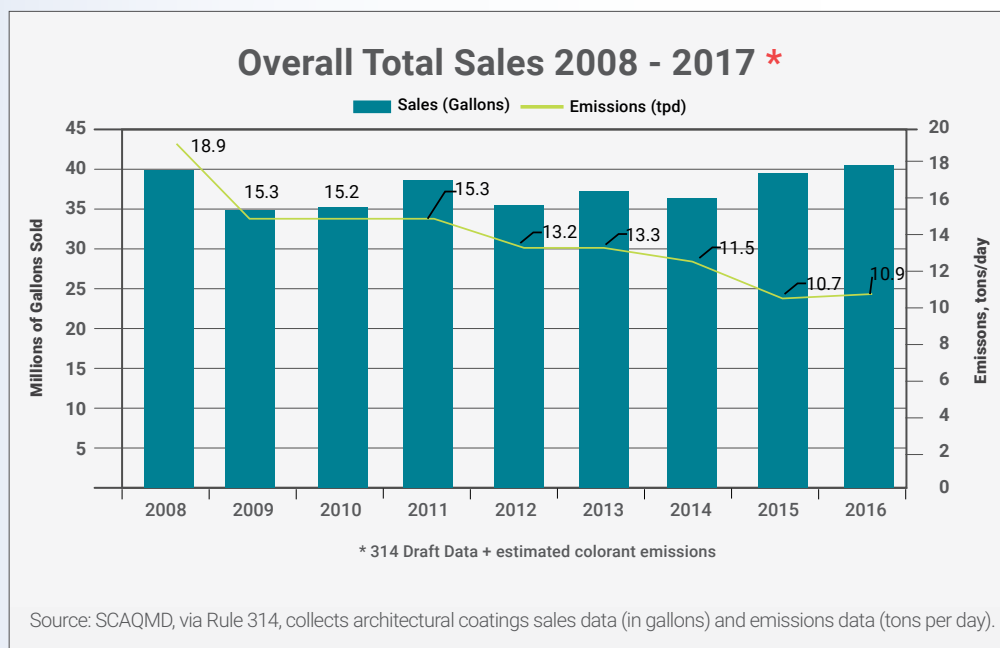
Improving environmental and human health is essential to sustainable development. The coatings industry has actively worked to reduce air emissions associated with its products by creating advanced chemistries used in paints and coatings to improve air quality and protect human health and the environment.



Volatile Organic Compound (VOC) Emission Reduction

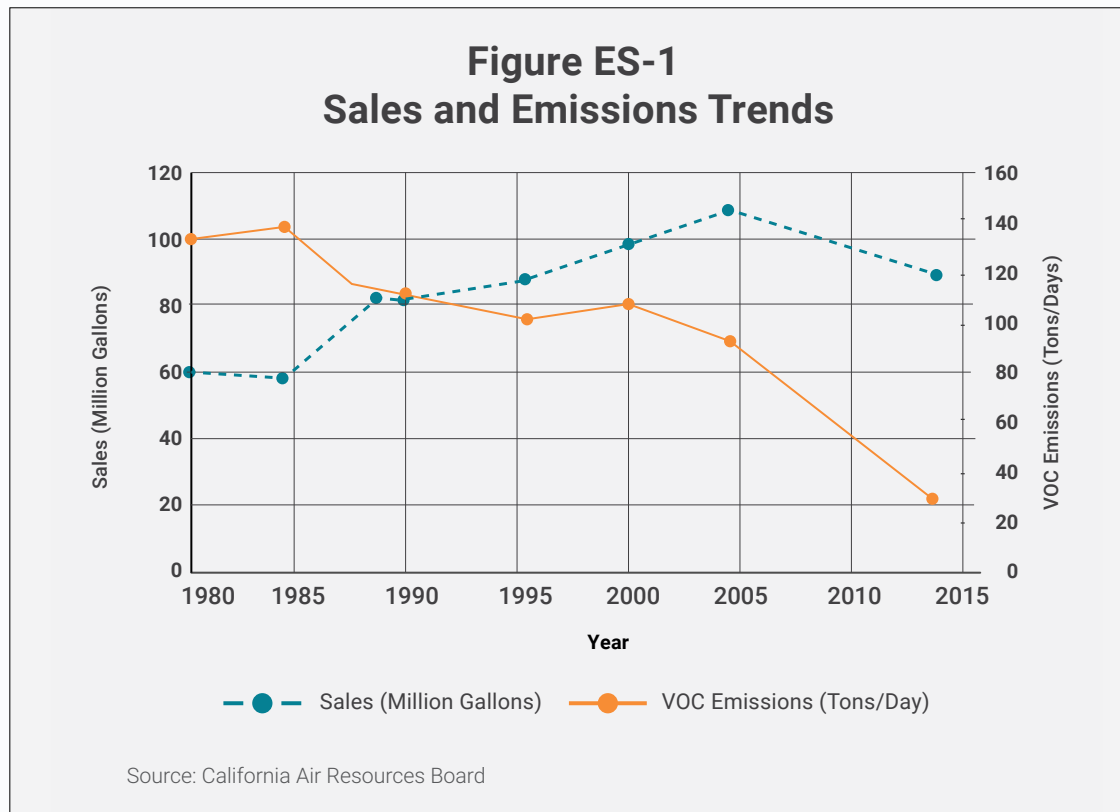
Advancements in coatings technology have led to significant reductions in volatile organic compound (VOC) emissions from paints and coatings. California's South Coast Air Quality Management District (SCAQMD), which includes the Los Angeles area, has the most stringent air emissions regulations in the country, due to air quality issues in the district. As such, ACA analyzes the air quality data collected by the local air district since it is a great indicator of emissions trends globally. The data collected in this area demonstrates that, despite increasing sales, emissions from architectural coatings have decreased by more than 40% since 2008. This dramatic reduction in emissions illustrates industry's commitment to reducing its environmental footprint and improving air quality.

Architectural Coatings Sales Data (in gallons) and Emissions (tons per day)



The California Air Resources Board (CARB), the state's clean air agency, collects similar industry emissions data. Illustrated here, as sales (in millions of gallons) and VOC content (tons per day) of architectural coatings sold in California increased over the 35-year period, the average VOC content of architectural coatings decreased by 80%.

Sales and Emissions Trends, CARB Surveys

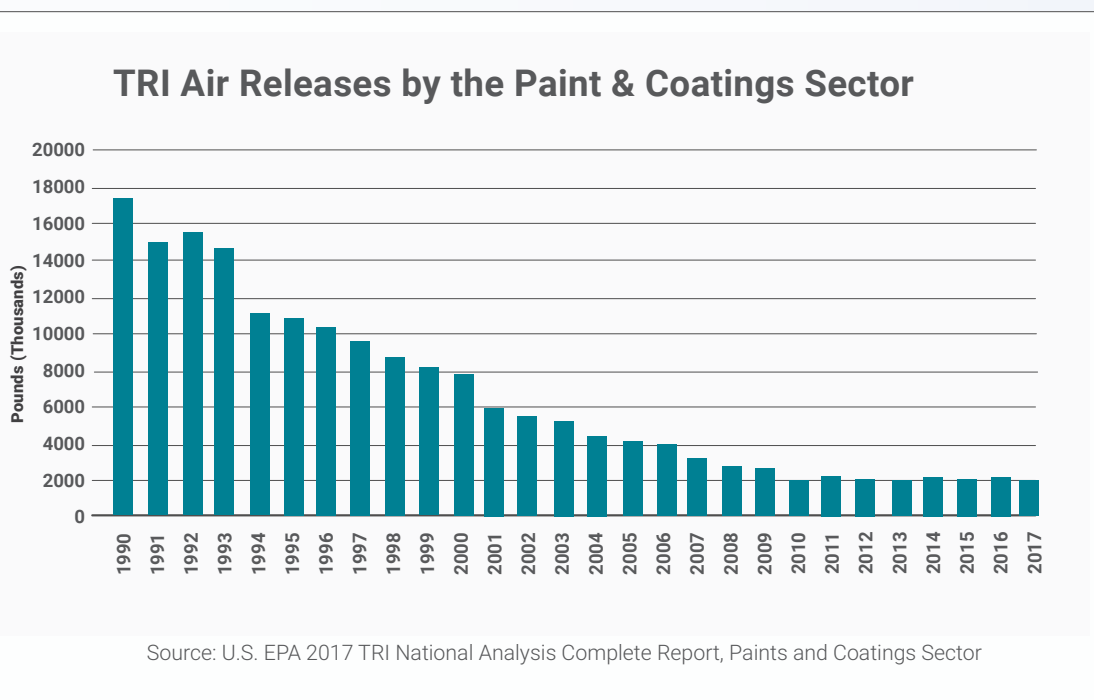


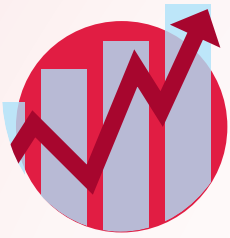
It is particularly noteworthy that emissions of architectural coatings have decreased significantly since the last survey in 2004.

Contributing factors for these large additional reductions include researching and implementing new paints and coatings chemistries, implementation of rules with lower VOC limits, and increased consumer demand for low-VOC coatings. CARB's survey data indicate that architectural coatings in California are continuing to shift toward waterborne products. It is important to note that since many paint stores and big box stores sell California products throughout the United States, the California VOC trends are extrapolated to apply throughout the country.

Coatings Manufacturing Air Emission Reduction

In addition to reduced VOC emissions from architectural coating products, technical advancements have led to significant reductions in emissions from coatings manufacturing operations. The U.S. Environmental Protection Agency (EPA) Toxic Release Inventory (TRI) air release data indicates that, since 1990, coatings manufacturing emissions have dropped by 89%.





Economic Contribution & Worker Safety

UN SDG #8: Decent Work and Economic Growth

The UN SDGs promote sustained economic growth, higher levels of productivity and technological innovation. The U.S. paint and coatings industry aligns with this goal, making significant contributions to the U.S. economy and its employees.

311,800

people in the United States engaged in the manufacture, application, sale, and distribution of industry products, in 2018.



The U.S. Paint and Coatings Industry payroll was more than **\$15.8 billion in 2018.**



40,400
employed
in the U.S. Paint
and Coatings
manufacturing
sector, in 2018.

**Total 2019 U.S. Paint and
Coatings Industry Exports:**

\$2.4 Billion



What's more, the U.S. paint and coatings industry enjoys a strong trade position, both with North American, and globally.

Positive U.S. Trade Surplus, Total:

\$ 1.5 billion

Exports to Canada:

\$ 1.1 billion in value

Exports to Mexico:

\$590 million in value

Learn more about the industry's
economic contributions at
www.paint.org/economicfacts.



2018 U.S. Paint & Coatings Industry Stats

\$28.4 Billion

Total value of shipments and receipts for services

\$11.7 Billion

Shipped value of architectural coatings.

\$7.7 Billion

Value of industrial coatings sold to customer industries

\$4.9 Billion

Shipped value of special purpose coatings

The Special Purpose Coatings segment can be divided into the following major sub-segments:

\$2.2 Billion

Automotive Refinish Coatings is the largest sub-segment, with a value of \$2.2 billion in 2018.

\$1.4 Billion

Industrial Maintenance Coatings is the second largest sub-segment, with a value of \$1.4 billion in 2018.

\$530 Million

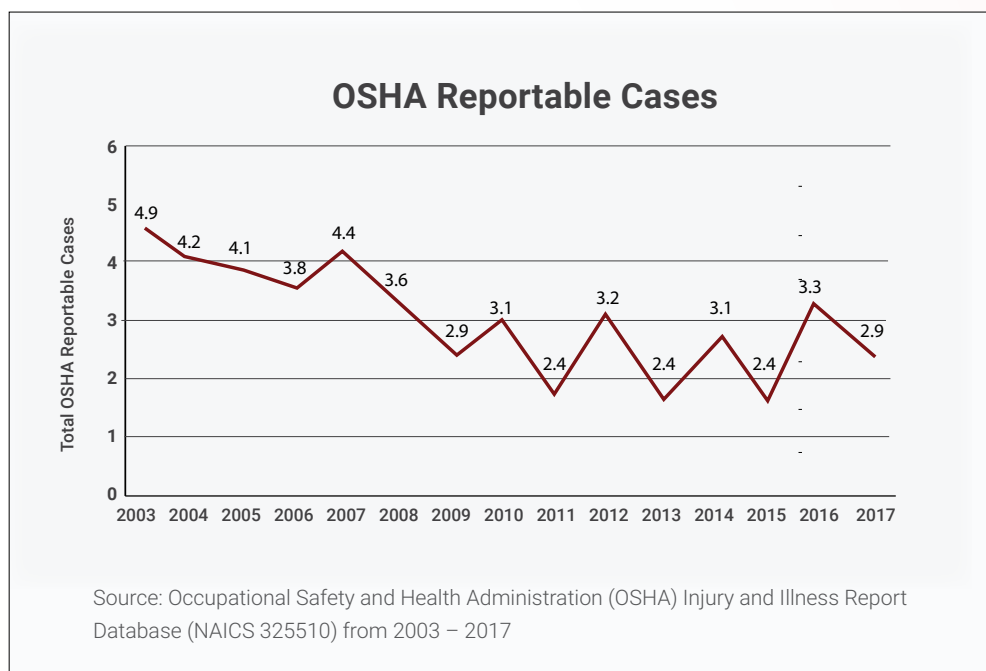
Traffic Marking Paint, used on roadways, parking lots and airport surfaces, had a value of \$530 million in 2018.

\$460 Million

Marine Paints, including both OEM (original equipment manufacturer) and refinish applications, had a value of \$460 million in 2018.

Promoting Worker Health & Safety

Worker health and safety is an ACA core value and an important focus area for member companies. ACA members report injury and illness reportable cases annually to the U.S. Occupational Safety and Health Administration (OSHA). OSHA reportable incident data from 2003-2017 for coating manufacturers, shown here, demonstrates the industry has consistently lowered its recordable cases and continues to prioritize safety.



ACA Safety Awards Program

ACA encourages and recognizes member company facilities with outstanding safety records through its annual ACA Safety Awards Program. The program aims to:

- » Honor member company facilities that demonstrate superior safety performance, which is a key part of social sustainability; and
- » Allow members to benchmark their performance against others in the industry.

A full list of ACA Safety Award Recipients can be found on our website:

www.paint.org/safety-awards.



Improving the Community

UN SDG #17: Partnerships for the Goals

The coatings industry believes that the SDGs can only be realized with strong global partnerships and global cooperation.

In 1992, the International Paint and Printing Ink Council (IPPIC) was established to ensure global coordination on the development of industry policy to lower the industry's global environmental and health impacts and ensure sustainable economic growth for the industry. In 2005, IPPIC was granted NGO status from the United Nations Economic and Social Council, and advocates for sustainable international industry issues to the UN and its governing body. In 2019, the name of the International Paint and Printing Ink Council was changed to the World Coatings Council.

UN Lead Paint Alliance

The World Coatings Council — an international organization for which ACA serves as Secretariat — is a formal contributor to the Lead Paint Alliance (LPA), an organization established under the United Nations Environmental Program (UNEP) and the World Health Organization (WHO). Since its inception in 2010, the LPA has been working to engage national governments, industry, and non-governmental organizations in establishing restrictions on lead use in paints that pose public health and environmental risks, especially to children.

The World Coatings Council's contribution to the LPA has been to highlight the widespread existing restrictions on lead use in paints and to encourage the adoption of similar restrictions by governments that currently have none.

As the LPA continues its efforts to address lead use in paint and coatings, ACA and the World Coatings Council will continue working with other LPA partners to assist in industry implementation efforts to ensure widespread and verifiable compliance.

For more information on the LPA and efforts to seek restrictions on decorative paints, visit the <https://worldcoatingscouncil.org> and the UNEP website.



“ As the LPA continues its efforts to address lead use in paint and coatings, ACA and the World Coatings Council will continue working with other LPA partners to assist in industry implementation efforts to ensure widespread and verifiable compliance. ”

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. The organization was formed in 2017, based on a long-standing 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.

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 Indian 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.

ACA and the World Coatings Council have supported RMI's efforts by serving on the RMI Board and on RMI working groups that address traceability, legal and community empowerment strategies. ACA also organized responses to media inquiries at both the domestic (ACA) and international (World Coatings Council) level. The World Coatings Council established a working group under its Industry Stewardship Committee to address the natural mica concerns and derive best practices to apply to future supply chain management issues. The council engages in regular communications on the RMI activities with members and for companies that have an interest in supply chain dynamics.

More information about RMI is available online at: <http://www.responsible-mica-initiative.com/>.

ACA Science, Technology, Engineering, & Math (STEM) Education Resources

ACA has partnered with Young Minds Inspired to create an educational STEM outreach program for middle school students that introduces coatings science, creates an awareness of what coatings are, and demonstrates coatings applications.

ACA's message to young students helps them develop an interest in the practical science around them and delivers the message that STEM is for everyone, and STEM specialties are plenty.

A multitude of resources and information on ACA's STEM offerings is available at <https://www.paint.org/stem>.



Industry Sustainability Stories

ACA is proud of the initiatives its members are undertaking every day in their operations and through their innovative products and services to advance a Sustainability commitment. Several member company stories are highlighted here, and additional information about their Sustainability initiatives may be found on their websites and annual financial and Sustainability reports. There are many more stories of the industry's Sustainability commitment. These are a few examples.

Disclaimers

While reasonable efforts have been made to include reliable data and information here, ACA cannot assume responsibility for the validity of all facts, data and materials contained herein, the consequences of their use, or any translation of the contents of these stories. The information was created and/or compiled by ACA or its agents and is offered solely to aid the reader. To the fullest extent permissible under applicable law, ACA and its member companies do not make any guarantees, representations or warranties of any kind, express or implied, with respect to the accuracy and completeness of the information contained herein and assume no responsibility for the use of this information. ACA and its member companies do not assume any responsibility to amend, revise, or update information contained herein based on information which becomes available subsequent to publication.





Formaldehyde-Free Crosslinker for Industrial Wood Applications



For allnex, sustainability is a commitment to our stakeholders and a key part of our continued success. We are embracing this responsibility with a dedication to pursuing a greener and more sustainable future with our customers and suppliers. Each of us has a tremendous responsibility to protect the planet in which we all live.

allnex is aiming to “be the catalyst of a greener future.” We have developed a portfolio management system to help the business grow in a focused and sustainable way. To us, greener technologies mean delivering safer, more environmentally-friendly solutions, replacing substances of high impact to the environment, utilizing sustainable and renewable raw materials, formulating products that allow for lower energy consumption and provide a longer useful life for the final products.

Sustainable resins are moving from marketing buzz to reality. Many of our customers intend on delivering greener products to the marketplace, and we’ve responded to support their efforts with high quality solutions. Our research & development team uses the principles of green chemistry to improve products. Today, a significant share of our R&D projects is focused on developing sustainable solutions for our clients. We continually strive to increase the percentage of non-harmful feedstocks in our products as well as to increase the breadth of products in which these materials are used.

One such resin is our CYMEL® NF 3030, which is a formaldehyde-free, water-based solution for the industrial wood coatings market. It is an acid-catalyzed no VOC crosslinker that can replace isocyanates. Typical urea and melamine resins off-gas formaldehyde, methanol and butanol on cure and isocyanates off-gas carbon dioxide when mixed with water. CYMEL NF 3030 is unique and environmentally friendly in that the condensation product from the crosslinking reaction mechanism is only water.

When formulated with VIACRYL® SC 6834 acrylic dispersion, this crosslinker provides excellent early property development (print resistance, film hardness), excellent pot life, good film appearance and cures at ambient temperature thus lowering energy costs. The coatings can be sanded in as little as 30 minutes, allowing for faster recoat and cycle time. CYMEL® NF 3030 delivers the desirable performance characteristics required of water soluble systems, while meeting the customer need for zero formaldehyde emissions and zero VOC’s.

For more information, visit
<https://www.allnex.com/en/info-hub/sustainability>.



Adding Years to Old Structures

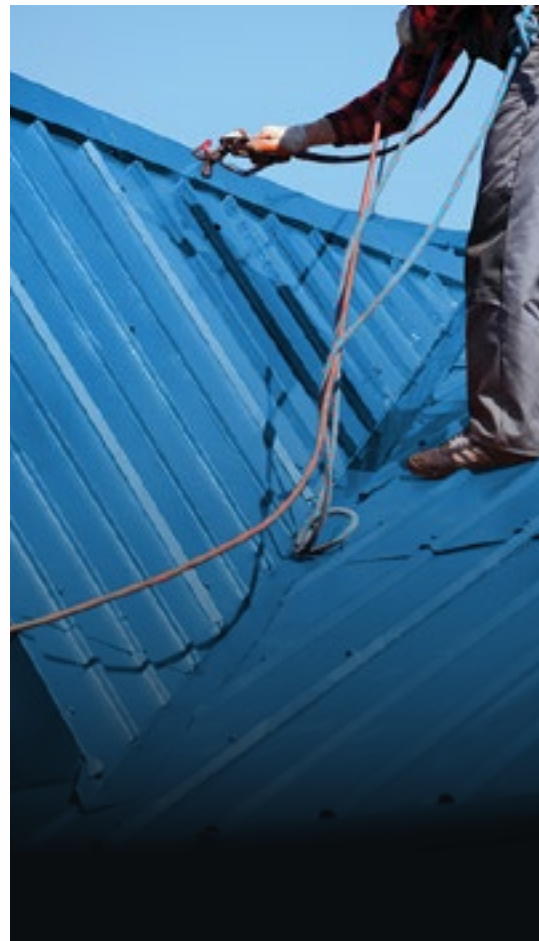
Axalta coatings find many applications that contribute to sustainability goals in the course of new building construction and the restoration of existing structures. Axalta's water-based Hydropon™ spray-applied field repair coating can transform the appearance of an old roof or siding into looking brand new.

The product can extend a structure's years of service and provide a new color without affecting the environment.

- » Waterborne technology significantly reduces emissions compared to solventborne alternatives.
- » Air-dry technology means Hydropon can be applied in the field without the need for high temperature curing. This conserves resources by repainting rather than replacing structures and doing so without energy required to cure the coating.
- » Durable performance translates into the ability to withstand extended exposure to humidity, temperature extremes, UV light and acid rain.
- » A smooth finish enables newly coated surfaces to resist mold and mildew, staying clean longer and reducing maintenance costs.
- » A combination of cool and high reflectivity pigments reduces energy use by directing heat away from the building, lowering the burden on air conditioning systems.
- » Reflective properties and cool pigments also combine to help reduce urban heat island effect and lower ambient outside air temperatures.

Our challenge in developing Hydropon was its application and durability in the most severe environments. For example, painted metals in tropical, coastal or highly humid climates, which expose materials to salty sea fog, wind and strong ultraviolet light, are what Hydropon is especially designed for.

Learn more about Axalta's sustainability efforts <https://www.axalta.com>.





Trendsetters in Sustainability

More and more, consumers are becoming aware that, for better or worse, their choices have a direct impact on the future of our planet. And many are willing to leverage this power to make a difference. At the same time, they are looking for greater comfort, style, and functionality in products they use every day. Covestro offers material technologies that allow consumers to enjoy the convenience and beauty of high-quality products—and still support the sensible trend toward sustainability.

The textiles industry, for instance, is one area that has placed increasing importance on the use of sustainable solutions, from raw materials to manufacturing processes. To support the use of mindful materials, Covestro developed a portfolio of environmentally friendly products for textile applications. Known as INSQIN®, this technology can be used to formulate high-quality, water-based polyurethane (PU) coatings for colorful, sustainable textiles that also boast strong durability, superior elasticity, soft-touch layers, breathability and water resistance.

The benefits of creating functional textiles from Covestro materials are multifaceted. In addition to boasting low-odor and low-VOCs, thanks to water-based PU binders, textile coatings formulated with INSQIN® technology perform at least as effectively as solvent-based products. Furthermore, these customizable materials provide visual appeal and superior durability. They can be utilized by a broad range of industries—including sportswear, footwear, automotive and more.

In the automotive industry, for example, electric vehicles, car sharing, and tightening regulations on VOC emissions and sustainability are redefining the role and function of automotive interiors. With INSQIN®, a variety of coated

textiles and innovative materials can be used to create a stylish and inviting in-car experience. This waterborne polyurethane technology enables more sustainable, flexible, lighter and durable coatings with a premium look and feel. Outdoor clothing and accessory brands can also benefit from INSQIN® technology. When venturing outdoors, the art of staying dry is twofold: consumers want waterproof gear that offers protection from the elements, but they also want fabrics that allow water vapor from sweat to escape. In addition, buyers are now looking for clothing that is produced in a way that lessens impact to the environment.

Our waterborne technology is a more environmentally compatible solution for textile manufacturers to achieve waterproof performance with a soft, breathable feel that keeps consumers comfortable. It can be used to produce durable and flexible textile coatings for jackets, shoes, caps, gloves, backpacks and other items.

Switching to a waterborne PU technology like INSQIN® can have a positive ripple effect. For instance, using a waterborne process can cut the carbon footprint of PU materials by half. If the entire textile industry switched to this technology, the effect in one year would be like offsetting the emissions of 6 million cars—that's more than all the cars in London, Los Angeles and Hong Kong. Additionally, enough process water would be saved to meet the water use of nearly 340,000 people in China every day.

Waterborne PU technology is one of the many ways Covestro is developing sustainable solutions to make the world a brighter place.

Learn more at solutions.covestro.com.



Responsible Environmental Awareness

Products from the paint, printing inks and coatings industry are subject to increasingly stringent demands. Modern, new products enable Coating Additives to play its part in meeting current and future requirements for coatings. Coating Additives occupies a leading position especially in the areas of modern environmentally-friendly paints such as waterborne coatings, radiation-curing systems, solvent-free and high-solids formulations.

Our latest sustainable highlight: New silicone resin for pots and pans – heat resistant and waterborne, with a unique combination of properties: sustainable, high performance, and easy to use.

Colorful cookware is right on trend. Bright reds, deep blues, and vibrant yellows – pots and pans are increasingly becoming a design feature rather than simply a functional tool. This gives a dual purpose to the external coating: It has to look good and withstand a fair amount of punishment.

Heat-resistant coatings for cookware and bakeware are certainly not new – but to date, they have been almost exclusively solvent-borne. Evonik's Coating Additives business line is now launching a more environmentally friendly silicone resin, which has been specifically developed for waterborne coatings.

The new product is a heat-resistant silicone resin that meets all the requirements of a sustainable formulation. It is free of organic solvents and features a significantly reduced VOC content from production to application.

It's suitable for food contact as part of the external coating. By eliminating critical ingredients, the silicone resin is not classified as hazardous according to GHS.

The combination of properties – high performance, ease of handling, and approval for food contact – makes this product unique on the market. Customers can enjoy greater freedom when formulating their coatings as the silicone resin can be combined with numerous pigments and can be used anywhere stoving coatings are used. This also includes, for example, toasters or other household appliances (electrical appliances). The working temperature resistance is 200°C. The high flashpoint of above 90°C offers corresponding benefits for storage and transport.

"In this silicone resin we offer a product that meets increasingly stringent regulations," says Maximilian Morin, head of the industrial coatings market segment. "The extensive and vigorous development has paid off and is an excellent example of our efforts to continuously expand our portfolio and offer more sustainable products."

You can find regulatory, technical, and safety data sheets on the product as well as more information about sustainability at Coating Additives on www.coating-additives.com.





Innovative Powder Coating Extends Spring Life, Increases Recyclability



At PPG, we work every day to develop and deliver the paints, coatings and specialty materials that our customers have trusted for more than 135 years. Through dedication and creativity, we solve our customers' biggest challenges, collaborating closely to find the right path forward.

We are committed to using resources efficiently and driving sustainability throughout our entire value chain to preserve and protect the environment in which we operate.

Environmental stewardship has driven PPG's research and development for more than a century. In the last decade, a strategic realignment to focus our product portfolio almost entirely on paints and coatings has enabled a concerted and disciplined approach to developing sustainably advantaged products and processes that provide environmental and other sustainability benefits to our customers.

Our coatings, materials and technologies reduce corrosion, extending the life of our customers' products. We also help our customers reduce energy usage and emissions, protect their employees and minimize waste and water consumption through the use of our products.

One major advancement in corrosion and chip resistant coatings technologies is the PPG ENVIROCRON® Extreme Protection powder coating system, which is formulated to

provide superior chip and corrosion resistance to extend the life of high-tensile automotive coil springs on original equipment manufacturer (OEM) vehicles. The dual-coat process features a sustainable approach and an entirely new impact-absorption mechanism for chip mitigation.

Based on a patent-pending technology using reclaimable materials, PPG Envirocron Extreme Protection powder coating system surpasses 150 cycles of testing as prescribed by SAE International's J2334 Laboratory Cyclical Corrosion Test, which is the automotive industry's most stringent performance standard for this type of testing.

A key aspect of PPG's product development process is selecting sustainable and safe materials to manufacture a product. We actively seek to avoid using chemicals of concern in new products, and we have been successful in removing these substances from many existing products through reformulation. For example, PPG Envirocron Extreme Protection powder coating is specially formulated without fiberglass, and is easier to reclaim and recycle compared to a similar competitive product. Additional benefits include exceptional application transfer efficiency, consistent film builds on spring surfaces and a wide application window for ease of use.

To learn more, visit www.ppgindustrialcoatings.com.



Executive Summary

The American Coatings Association (ACA) is a voluntary, nonprofit trade association that represents the U.S. paints and coatings industry by working to promote policies to enable its members to bring innovative, effective and safe coatings products to market that protect and preserve the surfaces to which they are applied. As such, Sustainability is a focus for ACA's various committees and initiatives.

The 2020 ACA Sustainability Report focuses the industry's contributions to sustainability through five specific United Nations Sustainable Development Goals (UN SDGs): Good Health and Well-Being (UN SDG #3); Decent Work and Economic Growth (UN SDG #8); Industry, Innovation and Infrastructure (UN SDG #9); Responsible Consumption and Production (UN SDG #12); and Partnerships for the Goals (UN SDG #17).

The paint and coatings industry advances technologies that protect infrastructure from corrosion, reduce energy usage through reflective coatings, prevent the harmful transfer of invasive aquatic species and increase fuel efficiency in boats via anti-fouling marine coatings, and streamline the application processes in manufacturing and commercial use by utilizing monocoat technology.

But Sustainability in the coatings industry extends beyond product design and processes to industry stewardship.

ACA has created opportunities for recycling leftover paint by creating a non-profit program — PaintCare — that facilitates the reduction, recovery, reuse and recycling of leftover architectural paints and coatings. The landmark PaintCare product stewardship program is enacted in 11 states and the District of Columbia, and has collected more than 39 million gallons of post-consumer paint since its inception in 2009.

Advancements in coatings technology have led to significant reductions in volatile organic compound (VOC) emissions from paints and coatings. Despite increasing sales, VOC emissions from architectural coatings continue to decrease. Moreover, U.S. EPA Toxic Release Inventory (TRI) air release data indicates that, since 1990, coatings manufacturing TRI air emissions have dropped by 89%.

COATINGS PRESERVE materials and make products more sustainable through enhanced durability and increased performance properties. **COATINGS PROTECT** the surfaces we depend on every day, all while enhancing and beautifying our world. **COATINGS PROVIDE** for our future.



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