World Coatings Council*

PRESS RELEASE

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World Coatings Council: Supporting Sustainability with Essential Coatings

October 27, 2021 – Washington, DC – The World Coatings Council supports the goals of the UN COP26 to secure global net zero by mid-century and to reconfirm the goal of the Paris Agreement of limiting global temperature rise to 1.5 degrees. As a sector, the coatings industry is committed to sustainability, as well as the pillars of the UN Sustainability Development Goals (SDG): "People. Planet. Prosperity. Partnership. Peace."

The global paint and coatings 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 embraces sustainability by increasing resource recovery; reducing and eliminating hazardous emissions, toxins, and wastes; offering products formulated to meet specific safety requirements; supporting efforts to conduct life-cycle analyses for environmental impact; and promoting product stewardship. 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.

Coatings have numerous applications to myriad substrates, and what's remarkable about the environmental advances in this field is that coatings are engineered to perform well under varied conditions and provide advanced performance characteristics to the finished product. This means, providing protection from degradation like corrosion, abrasion, high or low temperatures, chemicals and ultraviolet rays, moisture, and microbes.

Here are a few examples of how coatings and the global industry contribute to sustainability.

Antifouling marine coatings for use on marine vessels and ships above and below the waterline 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, which are subject to intense regulation, 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.

Energy application 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.

Cool roof coatings provide value by enhancing the ability of commercial buildings and homes to regulate temperature, leading to a reduction in energy usage. For example, 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%.

Coatings for water transmission improve the pipeline infrastructure and serve as an internal lining and a corrosion-resistant external coating, for both potable and non-potable water transmission pipelines, acting as a barrier for both mechanical resilience and resistance against both chemical and climactic impact.

Coatings for electric and hybrid vehicles provide key performance attributes.

- Electrically insulating coatings help control temperature for superconducting batteries and extend battery life.
- Coatings systems developed for newly introduced lightweight metals and composites used by EV and hybrid automakers help with "lightweighting" to achieve better fuel economy and reduced CO₂. These coatings must adhere to these very different substrates, as well as provide solar reflectivity, corrosion protection, and the desired appearance. Notably, these coatings systems are advancing rapidly, becoming thinner and designed with fewer layers.
- External coatings with infrared-reflective pigments keep the vehicle cabin cooler to reduce the need for extra energy to power air conditioning, ultimately enabling EVs to go farther on a single charge.
- Coatings developed to protect against electromagnetic interference are necessary to shield
 electronics used in vehicle communication systems from the large magnetic field generated by
 vehicle battery packs.
- Coatings are engineered to be compatible with EV computer drivers, sensors, and communications systems; easy-to-clean; and retain their hydrophobic and transmissive properties (anti-reflective, etc.).

Automotive monocoat technology results in more durable paint, uses less energy and water, and reduces CO₂ and particulate emissions compared with conventional paint processes.

Voluntary Initiatives and Partnerships

The coatings industry is involved in numerous initiatives and partnerships. In several countries where there is no specific legislation regulating the treatment of post-consumer paint the paint and coatings industry has 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 provide an industry-led system for the management of post-consumer architectural paint and containers in an environmentally sound manner that includes collection, transportation, processing, recycling, and proper disposal.

Community Partnerships

The World Coatings Council is a contributing member of the Lead Paint Alliance (LPA), an organization established under UNEP and the 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 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 World Coatings Council supports RMI's efforts by serving on the RMI Board and on RMI working groups that address traceability, legal and community empowerment strategies.

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About the World Coatings Council

The World Coatings Council provides a forum for information exchange and cooperation on the major issues and priorities facing the coatings industry worldwide. The World Coatings Council is comprised of members representing associations from Australia, Brazil, Canada, China, EU, France, Germany, Japan, Mexico, New Zealand, South Africa, Turkey, United Kingdom, and the United States. For information about the council and the activities it is involved in on behalf of the global coatings industry, please visit www.worldcoatingscouncil.org.

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