

FROM PLASTIC TO POWDER

POWDURA® ECO
POWDER COATINGS

Plastic waste
transformed.

SHERWIN-WILLIAMS®



MITIGATING PLASTIC POLLUTION

WE'RE IN IT TOGETHER

Plastic is an ever-present material in both our personal and professional lives – it's hard to imagine a world without it. From our pantries to our safety helmets, plastic has become an essential protective material, but its production is a growing global concern due to **plastic pollution**.

The market is beginning to demand social and environmental responsibility from all industries. Increasingly, manufacturers – whether we make appliances, furniture, building products or paint – are being held to higher sustainability standards, and it's our collective concern to contribute solutions to plastic pollution. Initiatives to reuse materials, reduce energy consumption and decrease waste have become common goals among our organizations because consumers expect their favorite products to be environmentally-conscious.

Choosing powder over liquid or solvent-based coatings will reduce your environmental impact. Powder coatings contain little to no VOCs, and up to 95% of overspray can be reclaimed and reused. They often require just one coat and can cure at lower temperatures – providing material and energy savings.

Powdura® ECO powder coatings from Sherwin-Williams are a next-level approach to sustainability. This transformative product collection elevates powder coating sustainability to new heights – providing customers a more sustainable solution to product protection, color and performance.

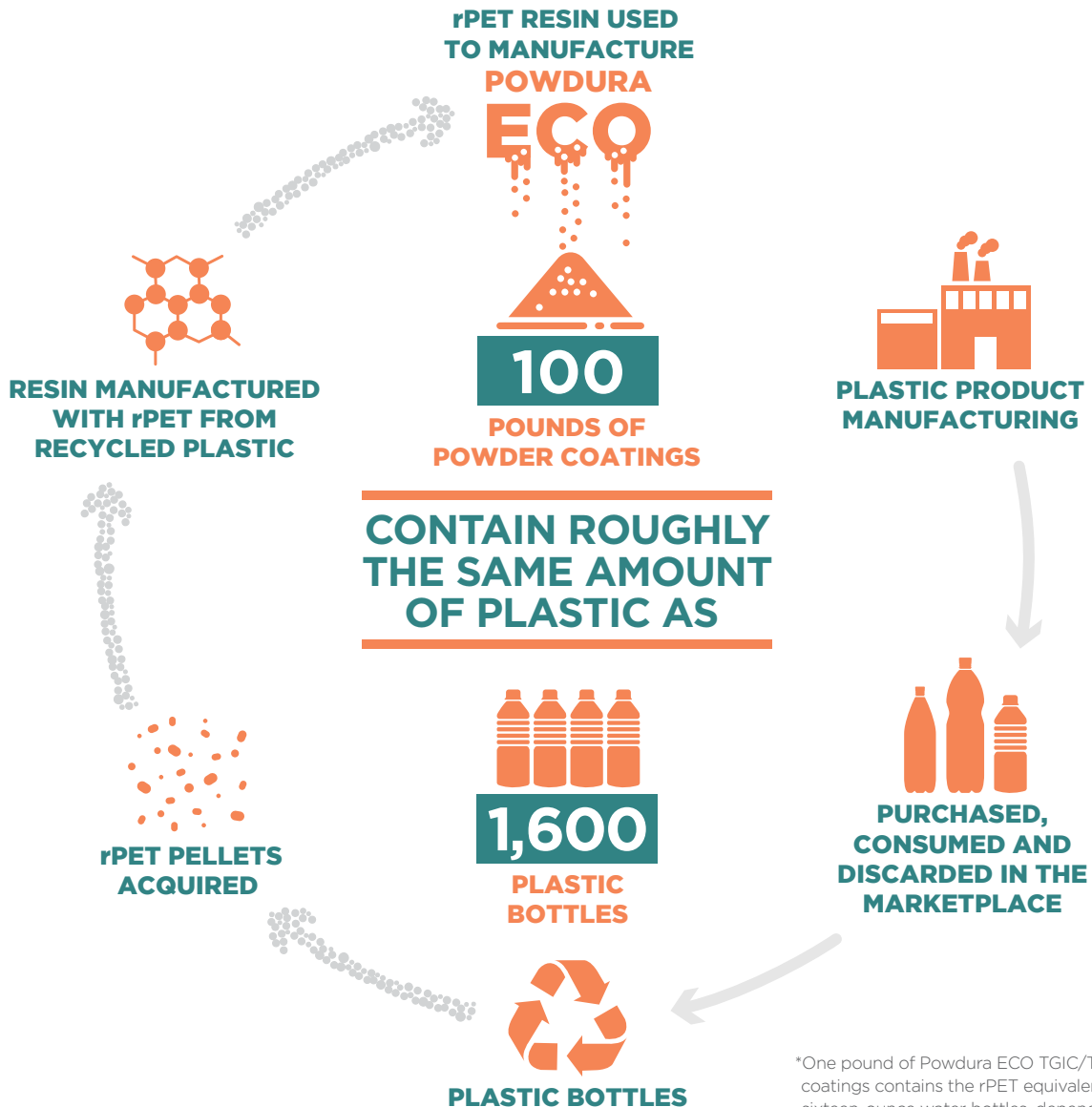
The Powdura ECO range includes polyester TGIC, polyester TGIC-free and hybrid powder coatings.





PUTTING WASTE TO WORK

The innovation behind Powdura® ECO powder coatings is extraordinary. Plastic waste converts into durable, high-performing polyester resins that contain 25% post-consumer recycled plastic (rPET). Each pound of Powdura ECO coatings contains roughly the same amount of plastic as 16 sixteen-ounce recycled plastic bottles and delivers the same performance as conventional polyester powder coatings.



*One pound of Powdura ECO TGIC/TGIC-free coatings contains the rPET equivalent of roughly 16 sixteen-ounce water bottles, dependent upon final product formulation. One pound of Powdura ECO hybrid coatings contains roughly 7-10 sixteen-ounce water bottles, dependent on formulation.

Suitable for use in interior and exterior environments, including appliances, office furniture, electronic enclosures, generators, heavy equipment and more, Powdura ECO coatings meet or exceed your existing powder coating performance standards, and provide increased flexibility and impact resistance. They deliver an exceptional balance of mechanical properties, excellent color retention and solvent resistance. These polyester-based coatings are customizable to meet your requirements and can align with third-party certifications like LEED, GREENGUARD® and BIFMA Level®.

Available in a wide range of special effects, and color and gloss options, Powdura ECO products are easy to apply, have wide cure capability, and offer great light and weather fastness.

rPET FAQs

Q: What is rPET?

A: rPET is recycled polyethylene terephthalate (PET), which is a form of polyester and the most widely recycled plastic in the world. It is characteristically known for its strength, transparency and thermostability.

Q: Recycled products can carry the perception of inferior performance. What can I expect with the Powdura ECO range of products as compared to their non-recycled counterparts?

A: Powdura ECO products have the same quality, performance, durability and reliability as their “original” counterparts.

Q: What is the difference between pre-consumer and post-consumer recycled plastic?

A: Pre-consumer recycled plastic comes from the plastic waste generated during the manufacturing process of a good. Post-consumer recycled plastic is plastic that has been used and discarded by a consumer and is then recycled to give a second useful life.

Q: What is a circular economy?

A: A circular economy occurs when waste gets reused as a core raw material in another product. This differs from a linear economy: take, make, use, dispose, waste.

POWDURA® ECO POLYESTER TGIC/TGIC-FREE

Powdura ECO powder coatings are virtually the same in application, coating properties and performance when compared to conventional polyester TGIC or TGIC-free coatings. For specific performance properties, please see the chart below.

TEST PROPERTY	TEST METHOD	TGIC	TGIC-FREE
60° Gloss	ASTM D523	5 - 99 units	40 - 99 units
Smoothness Rating @ 2.0 mils	PCI #20	≥6	≥6
Impact (Direct/Reverse)	ASTM D2794	160/160 in. lbs.	160/160 in. lbs.
Conical Mandrel Bend	ASTM D522	1/8" No Cracking	1/8" No Cracking
Pencil Hardness	ASTM D3363	≥2H	≥2H
Crosshatch Adhesion	ASTM D3359	100% (5B)	100% (5B)
Re-coat Adhesion	ASTM D3359	100% (5B)	100% (5B)
Chemical Resistance (100% MEK)	PCI #8	Pass	Pass
Humidity Resistance (500 hours)	ASTM D2247	Blister Rating: 10, no blisters Rust Rating: 10, no rust	Blister Rating: 10, no blisters Rust Rating: 10, no rust
Salt Spray Resistance (500 hours)	ASTM B117	Avg. creep from scribe = <1.0 mm Blister Rating = 10, no blisters Rust Rating = 10, no rust	Avg. creep from scribe = <1.0 mm Blister Rating = 10, no blisters Rust Rating = 10, no rust
Xenon Resistance (500 hours)	ASTM G155	60° Gloss Retention = ≥85% ΔE = ≤1.0	60° Gloss Retention = ≥85% ΔE = ≤1.0
Standard Cure Parameters		10 minutes @ 400°F (204°C) 15 minutes @ 375°F (191°C) 20 minutes @ 350°F (177°C)	10 minutes @ 400°F (204°C) 15 minutes @ 375°F (191°C) 20 minutes @ 350°F (177°C)

Measurements based on laboratory conditions on 24-gauge CRS Bonderite® 1000 P99X test panels coated between 2.0 and 4.0 mils.

POWDURA ECO HYBRID

TYPICAL PERFORMANCE PROPERTIES

TEST PROPERTY	TEST METHOD	POLYESTER/EPOXY HYBRID
60° Gloss	ASTM D 523	10-99 units
Smoothness Rating @ 2.0 mils	PCI #20	≥6
Impact (Direct/Reverse)	ASTM D2794	Up to 160/160 in. lbs.
Conical Mandrel Bend	ASTM D522	1/8" No Cracking
Pencil Hardness	ASTM D3363	≥2H
Crosshatch Adhesion	ASTM D3359	100% (5B)
Re-coat Adhesion	ASTM D3359	100% (5B)
Chemical Resistance (100% MEK)	PCI #8	Pass
Humidity Resistance (500 hrs.)	ASTM D2247	Blister Rating: 10, no blisters Rust Rating: 10, no rust
Salt Spray Resistance (500 hrs.)	ASTM B117	Avg. creep from scribe = <1.0 mm Blister Rating = 10, no blisters Rust Rating = 10, no rust

Measurements were taken under laboratory conditions on 24-gauge CRS Bonderite® 1000 P99X test panels coated between 2.0 and 4.0 mils.

POWDURA[®] ECO APPLICATIONS

Powdura ECO is suitable for almost any application. Examples include lawn equipment, transportation vehicles, consumer goods, electrical enclosures and fixtures.



EMPOWER YOUR CONSUMERS

Consumers want to feel good about the purchases they make and often consider sustainability before the transaction stage. By using Powdura ECO, you can differentiate your finished goods with recycled materials that don't skimp on performance – a sentiment both you and your consumers can celebrate.

OUR COMMITMENT TO SUSTAINABILITY

Sherwin-Williams focuses on bringing sustainable coating solutions to market, and we are committed to leading the development of sustainable processes that help to preserve natural resources. Whether we're assessing programs focused on employee safety or ways that we can effectively conserve resources, protecting the world we live in is a core value that has been with us since 1866.

TAKE THE NEXT STEP TO REDUCING YOUR ENVIRONMENTAL FOOTPRINT

Contact your local Sherwin-Williams sales representative to learn more about Powdura ECO and to discover your new competitive edge.

To explore the color, gloss and texture possibilities of Powdura ECO, order new Powdura ECO color samples at oem.sherwin-williams.com.

FROM PLASTIC TO POWDER

POWDURA® ECO
POWDER COATINGS

Plastic waste transformed.

At Sherwin-Williams, we think about coatings differently, continuously seeking the perfect solution to help your products win over your customers. Whether you need the most rugged and protective coating, a technical expert to provide answers and hands-on support, consistently perfect color at just the right gloss, or a custom solution created just for you — we are here to help. We are Sherwin-Williams General Industrial Coatings, and we are obsessed with giving you the competitive edge.

oem.sherwin-williams.com

© 2022 The Sherwin-Williams Company