

# SHERWIN-WILLIAMS®

## POWDURA® ECO POWDER COATINGS



### POWDURA® ECO FTX HD IS A HIGHLY DURABLE, PREMIUM QUALITY COATING CERTIFIED AS QUALICOAT CLASS 2 AND GSB FLORIDA 3.

As a transformative approach to powder coatings for the architectural market, Powdura ECO FTX HD offers a full range of 21 trendy colors and effects that last. Containing recycled materials, offering a large and low curing window, and providing enhanced UV fastness, Powdura ECO FTX HD is the perfect answer to the market's unique needs.

#### General Features

PE/P/HD FTX ECO BT is a fine-textured, superdurable, thermosetting polyester powder coating that delivers superior resistance to UV radiation and outdoor weathering. Powder coatings from Sherwin-Williams are a transformative product collection that elevates sustainability to new heights, providing customers a more eco-conscious solution to product protection, color and performance.

The coating protects and decorates aluminum, steel and galvanized steel components in the Heavy Machinery market and Building Construction. As a low-bake coating, it is suited for fast line speeds and heavy gauge components. The coating provides a high level of color retention for Agricultural and Construction Equipment, as well Building Components.

The ECO series includes a new range of sustainable products formulated with resins created from recycled plastics. These polyester coatings deliver an exceptional balance of mechanical properties, superior flexibility, excellent color retention and good solvent resistance, and are designed to reduce plastic waste and contribute more environmentally friendly solutions. The innovation behind ECO powder coatings is extraordinary. Plastic waste converts into a durable, high-performing polyester resin that contains 10% recycled plastic (rPET).

#### Application

Due to its superior performance, this powder coating is suitable for exterior applications including tropical or harsh environments.

#### Substrate Preparation

The surface treatment should be chosen according to the type of substrate and the required performance.

The surface to be coated must be free from oxidation, oil, grease or any other form of contamination.

A good quality pretreatment process is recommended for optimum performance, certified products can be found via Qualicoat, GSB or Qualisteelcoat.

Final user should select the proper pretreatment based on corrosion resistance performance.

Where required, the corrosion resistance can be enhanced using a primer system.

**COLOR NAME** BRONZE 543

**DESCRIPTION** BOND PE/P/HD FTX ECO BT 543

**PRODUCT CODE** VDL1E0R06

#### Handling and Storage

Store at temperatures lower than 30°C; higher temperatures may damage the product. Storage life in original package is 18 months.

#### Technical Data

FEATURES	RANGE
Calc specific gravity (kg/L)	1.31
60 µm theoretical spread rate (m <sup>2</sup> /kg)	13
Dry film thickness (microns)	60-80
Gloss 60°	5-8
LRVs	18.3

#### Application Method

Recommended to be applied with electrostatic equipment (60/80 kV) or triboelectric guns automatically or manually.

It is advised to apply the product in layers with a thickness of 60-80 microns.

FEATURES	RANGE
Curing window	10-25 min 180°C
	12-30 min 170°C
	15-35 min 160°C

#### SUBSTRATE

PRETREATMENT	SUBSTRATE			
	ALUMINUM	STEEL	GALVANIZED STEEL	METALLIZED STEEL
CHEMICAL	Cr-free (Zr, Ti, Oxilanes or alternatives)	✓	✓	
	Pre-anodising	✓		
	Chromate	✓	✓	
	Phosphochromate	✓		
	Iron phosphate		✓	
	Zinc phosphate		✓	✓
	Nano-ceramic		✓	
MECHANICAL	Sand blasting	✓		
	Soft blasting			✓
	Sweeping			✓

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## Technological Features and Resistance Tests

The substrate used aluminium test panel pretreated with Bonderite 1000	
Thickness	DFT 60 microns
Curing	20 minutes at 160°C

Chemical resistance test by immersing for 48 hours at room temperature into:

Hydrochloric acid 10%	intact
Nitric acid 30%	matt, but washing off
Saturated hydrogen sulphide	intact
Hydrogen peroxide 40 volumes	intact
Ammonium hydroxide 10%	intact
Ammonium hydroxide 33%	intact
Sodium hydroxide 5%	intact
Tartaric acid 5%	intact
Sodium hydroxide 5%	intact
Citric acid 5%	intact
Lactic acid 5%	intact
Ethanol	intact
N-butanol	intact
Petroleum ether	slightly softened

The chemical resistance test was carried out on chromated aluminium.

TEST	RESULT	REF. METHOD
Buchholz indentation test	more than 90	UNI EN ISO 2815
Pendulum-rocker hardness Persozpendulum	more than 300	UNI EN ISO 1522
Erichsen cupping test (mm)	more than 5	UNI EN ISO 1520
Direct impact test (cm.Kg)	more than 25	ASTM D 2794; ISO 6272-2:2002
Reverse impact test (cm.kg)	more than 25	ASTM D 2794; ISO 6272-2:2002
Conical mandrel	Bend test Maximum 10 mm	
Crosscut adhesion (2mm) (GT)	Class 0	UNI EN ISO 2409

## Color Tolerance After Weathering

Accelerated weathering tests ISO 16474-2

Gloss retention	90% after 1000 hours
Color change	Delta E not greater than 50% of the limits prescribed in Qualicoat Specification Appendix A12 for Class 2

Natural Weathering Test Exposure in Florida according to ISO 2810

Gloss retention is at least	75% after 1 year Florida 60% after 2 years Florida 50% after 3 years Florida
Color change	After 3 years in Florida: within the limits prescribed in Qualicoat specification Appendix A12

### NOTE TO USER

The information contained in this document, while based on evidence and reliable methods, cannot be considered exhaustive.

This information is current to the date of issuance of this data sheet; therefore it is the user's responsibility to verify that the data provided on this sheet is current to the date of the product.

The user, under his/her own responsibility, shall respect all the existing provisions on hygiene and safety and shall verify every time the features and the specific and appropriate way to use the product because the user's respect of the provisions is not under the manufacturer's direct control.

The manufacturer does not guarantee nor assume any liability or responsibility for whatsoever harm that might result from a misuse of the product or for damages that have arisen after the product's distribution.