

RIVATERM 450 - Thermosetting Powder Coating for Metals

Rivalta Coatings S.r.l. — RV-450-PE

PRODUCT DESCRIPTION

Product Name	RIVATERM 450
Description	Thermosetting polyester-based powder coating, formulated for applications on metallic substrates exposed to aggressive external environments. It offers excellent corrosion resistance, color stability, and superior mechanical properties.
Compliance	EN 12206-1 for architectural coatings on aluminum and aluminum alloys

PRODUCT IDENTIFICATION

Product Code	RV-450-PE	
Product Type	Polyester-based powder coating	
System	Thermosetting (cross-linking with TGIC-free)	
Conformity	EN 12206-1, Qualicoat Class 2	
Appearance	Fine powder, particle size 25-50 µm	µm

APPLICATION DATA

PARAMETER	VALUE	UNIT
Recommended Film Thickness	60-80	µm
Minimum Film Thickness	60	µm
Polymerization Temperature	180°C × 15 min or 200°C × 10 min	
Substrate Temperature	Metal object (metal temperature)	
Powder Density	1.45	g/cm ³
Application Method	Corona or tribo electrostatic spray gun	
Recommended Voltage (Corona)	60-80	kV
Transport Air Pressure	1.5-3.0	bar

TEST RESULTS

PARAMETER	VALUE	UNIT
Gloss (60°)	85 ± 5 (req. 80-90, ISO 2813)	GU
Adhesion (cross-hatch)	Gt 0 (req. Gt 0-1, ISO 2409)	
Impact Resistance (direct)	3.0 (req. ≥ 2.5, ISO 6272-1)	Nm

Cylindrical Mandrel Bend	5 mm (no cracking) (req. \leq 5 mm, ISO 1519)	
Erichsen Cupping	6.2 (req. \geq 5, ISO 1520)	mm
Salt Spray Resistance	1200 h, Ri 0 (req. \geq 1000 h, Ri 0, ISO 9227)	
UV Resistance (QUV-B 313)	$\Delta E = 0.8$ (1000 h) (req. $\Delta E \leq 1.5$ after 1000 h, ISO 11507)	
Pencil Hardness	F (req. \geq HB, ISO 15184)	

AVAILABLE FINISHES

PARAMETER	VALUE	UNIT
Smooth Glossy	RV-450-LL	80-90 GU
Smooth Satin	RV-450-LS	40-50 GU
Smooth Matte	RV-450-LO	10-20 GU
Fine Textured	RV-450-BF	25-35 GU
Medium Textured	RV-450-BM	15-25 GU

STORAGE AND PRESERVATION

Storage Conditions	Store in a dry, cool place at temperatures below 25°C, protected from direct sunlight and heat sources
Shelf Life	12 months from the date of manufacture, in intact original packaging
After Opening	Reseal carefully and use within 6 months

WARNINGS AND LIMITATIONS

Minimum Film Thickness Requirement	The film thickness must not be less than 50 μm to guarantee the declared corrosion resistance performance
Substrate Temperature Range	Do not apply on substrates with surface temperature below 15°C or above 40°C
Substrate Preparation	Substrate preparation must comply with ISO 8501-1 standard, grade Sa 2½ for steel or in accordance with Qualicoat quality for aluminum
Mixing Restriction	Do not mix with powders from other manufacturers or with different resin types
High Corrosion Environment	For applications in environments classified C5-I or C5-M according to ISO 12944-2, contact Rivalta Coatings technical service for specific systems
Laboratory Conditions Disclaimer	The values reported were obtained under standardized laboratory conditions. Actual performance may vary depending on application and operating conditions

MANUFACTURER INFORMATION

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