



Functional Powder Coatings

Resicoat® R-735

FBE – External Pipe Coatings

Code: HLF89R

Product Description	Resicoat® R-735 is a Fusion Bonded Epoxy coating designed for use in multi-layer pipe systems. It is typically applied in the thickness range of 250 – 350 µm.		
Powder Properties	Typical value	Method	
Gel time at 205° C	14 – 20 sec.	CSA hot plate	
Density	1.45 ± 0.10 g/cm³	Air comparison pycnometer	
Particle size distribution	< 32 µm = 20 – 40 % < 160 µm > 98.5 %	Malvern ISO 8130-1	
Color	gray		
Moisture content	< 0.6 %	CSA Z245.20-10	
Storage stability	12 months from delivery date at ≤ 23° C (74° F) and 65 % relative humidity. Cooler temperatures and lower humidity are recommended. Shorter shelf life stability at higher temperatures. Do not exceed 33° C (91° F).		
MSDS	PC 010		
Application Data	Substrate	Mild steel	
	Surface preparation	Near-White Blast as defined by SSPC SP 10, Nace No. 2, Swedish Sa 2½ or BS Second Quality	
	Required surface roughness	50 – 100 µm	
	Recommended film thickness	250 – 350 µm	
	Application method	Electrostatic powder spray using a negative charge of 40 – 120 kV	
	Application temperature	190 – 220° C object temperature	
	Glass transition temperature	58 ± 5° C (Tg1) 105 ± 5° C (Tg2) 70 ± 15 J/g (Delta H) 110 ± 5° C (Tg2) -2° ... +4° C (Delta Tg)	DSC CSA Z245.20-06 DSC (inflection point)
Physical Tests	Performance will be influenced by quality of surface preparation, film formation and curing conditions. The following test results are typically for Resicoat® R-735 applied to 250 – 350 µm on steel panels cleaned to Near-White Blast:		
	Gloss 60° angle	80 – 100 units	DIN 67530
	Impact resistance	> 20 J	DIN 30671
	Adhesion to the steel	> 20 MPa	DIN EN ISO 4624
	Hardness	> 90	DIN EN ISO 2815
	Abrasion (Taber)	40 – 50 mg	ASTM D 4060, 1000 g load 1000 cycles, CS 10 wheels
	Cathodic disbonding	1 – 3 mm 1 – 4 mm 2 – 5 mm	DIN 30671 65° C, 24 h 65° C, 48 h 23° C, 30 d

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Disclaimer: This Product Data Sheet is based on the present state of our knowledge and on current laws. The data referring to Powder Properties, Application Data and Physical Tests is based on lab based samples. Factors such as quality or condition of the substrate may have an effect on the use and application of the product. It remains the responsibility of the user to test thoroughly if the product is applicable for the intended use. The use of the product beyond our recommendation releases us from our responsibility, unless we have recommended the specific use in writing. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. We are not liable for any application-technological advice. The Product Data Sheet shall be updated from time to time. Please ensure you have the latest version before using the product. All products and Product Data Sheets are subject to our standard terms and conditions of sale (GCS). You can receive the latest copy of GCS via internet or our post address. Brand names mentioned in this Product Data Sheet are trademarks of or are licensed to the AkzoNobel group.