

Product Datasheet

Resicoat® EL3 Coating for Busbar by Electrostatic Spray Application Code: HKF97R

Product Description	Resicoat® EL3 HKF97R is a one part, 100 % solids, epoxy powder coating for insulation of wire and busbars. Designed for electrostatic spray application with post curing, it has UL 1446 class F recognition with good resistance against heat, chemicals and moisture. The coating has a high level of consistent edge coverage.		
Powder Properties		Typical value	Method
	Binder System	Epoxy resin	
	Density	1.60 – 1.70 g/cm ³	ISO 8130-2
	Gel time at 200° C	30 – 50 sec.	modified ISO 8130-6
	Storage stability	6 months from date of manufacture at ≤ 23° C	
Application Data	Preheating temperature	200 – 220° C object temperature	
	Post cure conditions	10 min. 200° C object temperature	
	Particle size distribution	< 32 µm = 25 – 50 % < 160 µm > 99.5 %	Malvern ISO 8130-1
Material Properties	Color	green	
	Recommended film thickness	200 – 500 µm	
	Flow	smooth	
	Gloss at 60° angle	40 – 60 units	ISO 2813
	Cross cut	Gt 0	ISO 2409
	Impact resistance	> 5 Joule	DIN 3476-1
	Elongation	> 3 %	DIN 3476-1
	Hardness	> 100	ISO 2815
	Pencil hardness	5H	DIN EN 13523-4
	Glass transition temperature	56 ± 7° C (Tg1) 114 ± 6° C (Tg2) 40 – 70 J/g (Delta H)	ISO 11357-2 Inflection point Inflection point
	Water absorption (40 h / 23° C)	< 1 %	ASTM D 570
	Thermal conductivity at 25° C 80° C	0.433 W/(m · K) 0.471 W/(m · K)	DIN EN 821
Typical Electrical Properties	Specific surface resistivity	> 10 ¹³ Ω	IEC 60093
	Dielectric strength	> 30 kV/mm	IEC 60243-1
	Dissipation factor tan δ, 25° C 105° C	< 0.01 < 0.01	ASTM D 150 ASTM D 150
	Dielectric constant (100 Hz – 1 MHz)	4.0	ASTM D 149
	Comparative tracking index (CTI)	CTI 600	IEC 60112

Typical Electrical Properties (continued)	UL 94 Vertical Burning Test	V-0	IEC 60695-11-10
	Hot wire ignition (HWI)	≥ 120 sec.	IEC 60695-2-20
	High current arc ignition (HAI)	≥ 150	UL 746A Section 32
Approvals	UL 1446	Class: F (155° C)	File E225181
	UL 94 (flame retardancy)	V-0	File E214934
	Listed as Resicoat EL3 green FB		
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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.