

Product Data Sheet

AkzoNobel Powder Coatings

Resicoat® EL Epoxy Powder Coating for Electrical Components HFD11QF ECA-1283 Safety Orange

Product Description	Resicoat® EL HFD11QF ECA-1283 Safety Orange is an electrical grade functional epoxy powder coating designed for use in a wide variety of electrical, mechanical, and chemical applications. Made of hard, high edge coverage materials, HFD11QF is ideal for the integral insulation of electric motor cores, low and high voltage bus bars, hermetic connectors, and watt-hour meter coils.		
Powder Properties	Chemical type	Epoxy	
	Appearance	Smooth	
	Gloss level (Gardner 60°)	65 ± 5	
	Gel Time	ASTM D4217	75 – 105 sec
	Specific gravity	1.29 ± 0.05 g/cm ³ (Calculated)	
	Coverage @ 1.0 mil	149 ft ² /lb/mil (Calculated)	
	Storage	Maximum 73°F (23°C)	
	Shelf life	12 months from date of manufacture	
Mechanical Tests	Adhesion	ASTM D3359	100%
	Impact Resistance, Direct	ASTM 2794	40 in/lbs Minimum
	Hardness	ASTM 3363	H Minimum
Application Data	Application Method	Fluid Bed	
	Recommended Film thickness	10 – 120 mils (250μ - 3000μ)	
	Curing schedule (At Object Temperature)	Preheat: Object temp at 400°F Postheat: 10 minutes at 450°F	
Typical Performance Characteristics	Hardness, Shore D	ASTM D2240	87
	Tensile Strength	ASTM D638	9500 psi
	Edge Coverage	ASTM 2967	>50%; Method BA" @ 12-16 mils
	Thermal Conductivity	ASTM E1461	0.252 W/(m*K)
	Specific Heat		1.176 J/g/K
	Coefficient of Thermal Expansion	ASTM D696	5.2 x 10 ⁻⁵ in/in/°C
	Dielectric Constant		4.0
	Dielectric Strength	ASTM D149	1200 volts/mil
	Thermal Shock Resistance		Passes 10 cycles (+500°F to -67°F)
Pre-treatment	Steel surfaces to be coated must be clean and free from grease. For maximum protection, it is essential to pre-treat components prior to the application of Resicoat® EL . Iron phosphate and zinc phosphate of ferrous metals improve corrosion resistance.		
Application	Resicoat® EL powders can be applied by manual or automatic electronic spray equipment or via fluid bed for high film builds. It is recommended that for consistent application and appearance product be fluidized during application. Unused powder can be reclaimed using suitable equipment and recycled through the coating system.		

Approvals

This product is UL OCTD2.E34521 recognized to UL Designation ECA-1283. For UL OCTD2.E34521, following is the applicable data.

Min Film Thickness (mm)	Metal Thickness (mm)	Flame Class UL-94	HWI	HAI	RTI Elec	RTI Imp	RTI Str	CTI
0.13 – 0.14	2.1	V-0	-	-	130	130	130	2
0.45 – 2.3	2.1	-	-	0	130	130	130	-
0.57 – 0.63	2.1	-	0	-	130	130	130	-

Safety Precautions

Please consult the Safety Datasheet (SDS).

Disclaimer

IMPORTANT NOTE: The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product.

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