

Experts in Functional Powder Coatings

Product Datasheet

Resicoat® EL

Coating for Busbar by Electrostatic Spray Application

Code: HLF59R

| Product |
|-------------|
| Description |

Resicoat® EL HLF59R is a one part, 100 % solids, epoxy powder coating for insulation of wire and busbars. Designed for electrostatic spray application it has excellent resistance against heat, chemicals and moisture. The coating has a good edge coverage and flexibility. It is serviceable up to 130° C.

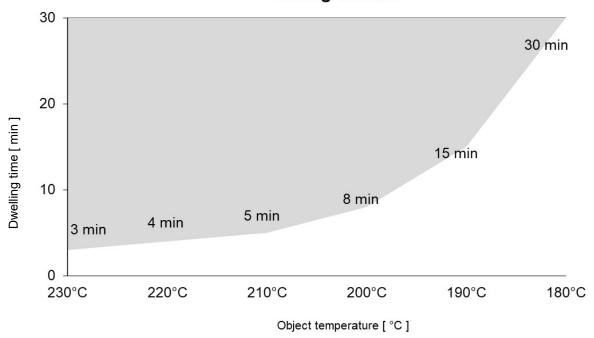
| | | Typical value | Method |
|-----------------------|---|--|---|
| Powder Properties | Binder System Density | Epoxy resin 1.75 – 1.85 g/cm³ | ISO 8130-2 |
| | Gel time at 200° C | 30 – 50 sec. | modified ISO 8130-6 |
| | Storage stability | 6 months from date of manufactu | ure at ≤ 23° C |
| Application | Preheating temperature | 190 – 235° C object temperature | |
| Data | Post cure conditions | 5 – 10 min. at above temperature | e |
| | Particle size distribution | < 32 μm = 25 – 40 % < 160 μm > 99.5 % | Malvern ISO 8130-1 |
| Material | Color | grey, ca. RAL 7047 | |
| Properties | Recommended film thickness | 200 – 300 μm | |
| | Flow | smooth | |
| | Gloss at 60° angle | 40 – 60 units | ISO 2813 |
| | Cross cut | Gt 0 | DIN EN ISO 2409 |
| | Impact resistance | > 5 Joule | DIN 3476-1 |
| | Elongation | > 5 % | DIN 3476-1 |
| | Hardness | > 100 | DIN EN ISO 2815 |
| | Pencil hardness | 5 H | DIN EN 13523-4 |
| | Glass transition temperature | 65 ± 7° C (Tg1) 112 ± 5° C (Tg2) 40 – 60 J/g (Delta H) | ISO 11357-2 Inflection point Inflection point |
| | Temperature index | 130° C (Class B) | IEC 60216-1 |
| | Water absorption (40 h / 23° C) | < 1 % | ASTM D 570 |
| | Thermal conductivity | 0.4 – 0.5 W/(m·K) | DIN EN 821 |
| Typical | Specific surface resistivity | > 10 ¹³ Ω | IEC 60093 |
| Electrical Properties | Dielectric strength | 45 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 / CTI 175M-1.1 | IEC 60112 |
| | UL 94 Vertical Burning Test | V-0 | IEC 60695-11-10 |
| | | | |





| Typical | Hot wire ignition (HWI) | ≥ 120 sec. | IEC 60695-2-20 |
|---|-------------------------------------|---------------|------------------------------|
| Electrical Properties (continued) | High current arc ignition (HAI) | ≥ 150 | UL 746A Section 32 |
| | | | |
| Approvals | UL 746B | 130° C | File E214934 |
| Approvals | UL 746B UL 94 (flame retardancy) | 130° C V-0 | File E214934 File E214934 |

Curing window



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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 fulfill 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.

