

Product Datasheet

Resicoat® EL4 Slot Insulation for Armatures by Electrostatic Fluidized Bed Application Code: HNE06R

Product Description											
Resicoat® EL4 HNE06R is a 100 % solids, epoxy powder coating for slot insulation of armatures. Designed for electrostatic fluidized bed application Resicoat® EL4 HNE06R has UL 1446 class H recognition with good resistance against heat, chemicals and moisture. The coating has a high dielectric strength with a measurable dimensional stability on the edge of >300° C.											
Powder Properties											
	<table border="1"> <thead> <tr> <th>Typical value</th> <th>Method</th> </tr> </thead> <tbody> <tr> <td>Binder system</td> <td>Epoxy</td> </tr> <tr> <td>Density</td> <td>1.60 – 1.70 g/cm³</td> </tr> <tr> <td>Gel time at 200° C</td> <td>18 – 25 sec.</td> </tr> <tr> <td>Storage stability</td> <td>6 months from date of manufacture at ≤ 6° C 4 months from date of manufacture at ≤ 15° C 3 months from date of manufacture at ≤ 23° C</td> </tr> </tbody> </table>	Typical value	Method	Binder system	Epoxy	Density	1.60 – 1.70 g/cm ³	Gel time at 200° C	18 – 25 sec.	Storage stability	6 months from date of manufacture at ≤ 6° C 4 months from date of manufacture at ≤ 15° C 3 months from date of manufacture at ≤ 23° C
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Application Data											
Heating temperature	230 – 240° C object temperature. The cure of the test material must be assured by a relevant test method.										
Particle size distribution	< 32 µm = 5 – 20 % < 200 µm = 99.5 – 100 %										
Material Properties											
Color	black										
Recommended film thickness	200 – 400 µm										
Flow	smooth										
Gloss at 60° angle	65 – 80 units										
Cross cut test	Gt 0										
Impact resistance	10 Joule										
Hardness	> 100										
Edge coverage	> 40 %										
Dimensional stability on edge	> 300° C										
Thermal conductivity at 25° C	0.485 W/(m · K)										
80° C	0.526 W/(m · K)										
Elasticity modulus	4000 – 4400 MPa										
Tensile strength	40 MPa										
Adhesive tensile strength	25 – 32 MPa										
Comparative tracking index (CTI)	CTI 600										
Typical Electrical Properties											
Specific coating resistivity after 240 h storage in H ₂ O	7.7 · 10 ¹⁴ Ω cm ²										
Dielectric strength	> 30 kV/mm										
Approvals											
UL 1446	Class: H (180° C)										

Chemical Resistance	Solvent vapours:	Aceton	1 week – no change
		Ammonia	1 week – no change
		Hexan	1 week – no change
		Benzol	1 week – no change
	Storage at room temperature:	Motor oil SAE 20	6 months – no change
	Super benzin	6 months – mat	
	Diesel	6 months – no change	
Storage at 70° C:	Suds 1 %	1 month – no change	
Water storage 90° C	Demi-H2O	1 month – no change	
Powder Storage Conditions	Cooler temperatures extend the shelf life of the powder. If it is stored at 6° C the powder must be acclimatised to the ambient temperature before it is processed in the equipment. This mainly consists of acclimatisation to the room temperature, as cold powder has poor fluidising characteristics and can condense the humidity of the air. This acclimatisation takes 8 – 16 hours. If material in cartons is used, the powder should be loosened up before use. This can be performed by shaking or kneading the powder bag.		
Date of issue:	June 25, 2020		
Authorized by:	GK		
Revision no.:	9		

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.