

# Product Datasheet



**AkzoNobel**

Tomorrow's Answers Today

## Powder Coatings

### Resicoat<sup>®</sup> R4-ES

for Electrostatic Spray Application on Preheated Surfaces

Code: HJF42R

#### Product Description

Resicoat<sup>®</sup> R4-ES HJF42R Blue is a high quality thermosetting epoxy powder coating for the corrosion protection of valves and fittings, manufactured from cast iron or steel. The powder coating is available to be applied in one layer on a preheated surface by electrostatic spray application or fluidized bed application. Typical film thickness achieved is in the range of 250 – 500 µm. The resultant thermoset epoxy has a high mechanical resistance with excellent electrical insulation properties. Drinking water approvals are available to confirm the coatings suitability, as a hygienic and environmental friendly coating. The outstanding adhesion of Resicoat R4<sup>®</sup> epoxy powders to the metal substrate provides long term protection of the coated component. It ensures a reliable conservation to the function and value of the parts for the common water and gas distribution network. The applicator of Resicoat<sup>®</sup> R4 benefits from a modern and environmentally friendly process.

#### Powder Properties

	Typical value	Method
<b>Binder system</b>	Epoxy resin	
<b>Density</b>	1.45 – 1.55 g/cm <sup>3</sup>	ISO 8130-2
<b>Gel time at 200° C</b>	25 – 40 sec.	ISO 8120-6
<b>Storage stability</b>	4 months from delivery date at ≤ 23° C	
<b>MSDS</b>	PC 508	

#### Application Data

<b>Preheating temperature</b>	200 – 220° C object temp.
<b>Post cure conditions</b>	self curing on 8 mm steel at above temp.
<b>Particle size distribution</b>	< 32 µm = 35 – 50 % < 160 µm > 95 %

#### Material Properties

<b>Colour</b>	blue, approx. RAL 5017	
<b>Recommended film thickness</b>	250 – 350 µm	
<b>Flow</b>	smooth	
<b>Gloss at 60° angle</b>	70 – 90 sec.	DIN 67530
<b>Cross cut test</b>	Gt 0	DIN EN ISO 2409
<b>Impact resistance</b>	> 5 Joule	DIN 30677-2
<b>Dielectric strength</b>	≥ 30 kV/mm	DIN 30677-2
<b>Elongation</b>	> 5 %	DIN 30671
<b>Hardness</b>	> 100	DIN EN ISO 2815
<b>Cathodic disbonding</b>	< 10 mm	ASTM G 8-92, 168 h
<b>Hot water immersion, 90° C, 4 weeks</b>	no visible change	
<b>Adhesion after 7 days, 90° C water</b>	> 16 MPa	acc. DIN EN ISO 4624, GSK

#### Drinking Water Approval

ANSI/NSF 61 Drinking Water System Components - Health Effects

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**Authorized by:** GK

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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.

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