Technical Data Sheet





WK4711HRU711 FREIOTHERM-KTL-Automotive

Product description

Product technology	cathodic electrocoat paint depositable 2K	
Application area	e.g. in the vehicle construction sector	
Application	Primer	
Type of paste	Pigment paste, fully neutralised	
Corrosion protection	good	

General product properties

Binder-Base	Expoxy Resin, modified		
Colour	Iron grey		
MEQ/s-Value	25-30 mmol/100g	DIN EN ISO 15880	
Density	1,4-1,7 g/cm³	theoretical	
Solid mass	63-67 %	theoretical	
Resistance to storage	approx. 9 month in original packagings at an ambient temperature of 5 to 25 °C. Protect from frost. Open packages are to be used within a short time.		
	The minimum storage stability of each batch is stated on the product label. The material does not necessarily become unusable if stored for longer than this period. However, for quality assurance purposes, an inspection of these materials is essential to ensure that they are still suitable for the intended application.		

Application and processing

Pretreatment	The substrate must be free of adhesion-impairing substances such as oil, grease, rust, scale, mill scale, wax and release agent residues. We recommend the use of suitable mechanical pre-treatment processes (e.g. blasting, grinding) or chemical pre-treatment processes (e.g. phosphating) according to the requirements.		
Gloss value	20-50 GU, Angle 60°	DIN EN ISO 2813	
Mixin ratio	The mixing ratio is dependent on various factors and is therefore coordinated with the relevant system in cooperation with the application technology department.		
Recommended coating thickness	15-30 μm		
pH-Value	5-6	DIN 19260	
Cunductance	800-1400 μS/cm		
Solid mass	12-16 %	DIN EN ISO 3251	
MEQ/b-Value	5,5-7,0 mmol/100g	VDA 621-190	
Organic Solvent Content	1,5-3,0 %		
Bath Temperature	32-34 °C		

Our technical data sheets are to provide you with advice based on our latest state of knowledge. This guidance does not release you from your own obligation to test our products for their suitability for your intended purposes and applications.

The sale of our products is in accordance with our terms of business, delivery and payment.

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Coating Time	120-240 sec.					
Deposition Voltage	150-350 Volts					
Turn-over	1 Turnover per year To ensure bath stability and thus the coating quality, the specified turnover (solids exchange of the ETL tank) must be observed.					
Curing	Recommended object temperature 20 min/160 °C					
	180					
	170					
	5 160					
	140					
	130 0 5 10 15 20 25 30 35 40 t [min]					
	Objekt Temperatur in °C 150 160 170 175 Object Temperature in °C					
	Haltezeit Minimum in Minuten3020105Holding time minimum in minutes					
	Haltezeit Maximum in Minuten40302010Holding time maximum in minutes					
Note on curing	Coloured area = stoving conditions with good end properties					
	The displayed baking conditions are based on results from laboratory tests and therefore merely serve as a guideline when configuring the processing company's coating systems. The processing company is responsible for ensuring that the coating is fully cured. The complete curing of the coating must be checked by means of additional analytical and resistance tests using representative original parts under production conditions. Please of not hesitate to contact us if you require consultation.					

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Mechanical tests					
Test substrate	on zinc phosphate				
Cross-cut-test	Gt 0		DIN EN ISO 2409		
Climatic tests					
Test substrate	on zinc phosphate				
Neutral salt spray test	Load duration Detachment Cut	1000 h <2 mm	DIN EN ISO 9227 (NSS) DIN EN ISO 4628-8		
Comments					
Work-and Healthprotection	The standard personal safety precautions must be observed when handling painting materials. Detailed information about dangerous goods, safety data and recommendations concerning Health and Safety at Work and environmental protection can be found in the corresponding safety data sheet.				
Test conditions	All information is based on a standard climate 23/50 DIN EN 23270. All information is based on our product knowledge an experience. We have no direct influence on the application itself. Please do not hesitate to contact us for further information.				
	The information provided here contains reference values and does not constitute a specification.				

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