KASIGLAS mar-protect
KASI®-GL scratch-resistant coating for PMMA

Special coating for Polymethylmethacrylate, providing high scratch-resistance and hardness combined with improved climatic and chemical resistance.

Typical properties

Revision: 09/13		Standard	KASI®- GL
General Properties			
Bulk density	*	DIN EN ISO 1183	1,19 g/cm³
Water absorption 24 h, 23°C	*	DIN EN ISO 62	<30 mg/kg
Mechanical Properties			
Tensile strength	*	DIN EN ISO 527	75 MPa
Elongation at tear	*	DIN EN ISO 527	104,5 %
Modulus of elasticity	*	DIN EN ISO 527	3300 MPa
Impact resistance	*	DIN EN ISO 179	12 kJ/m²
Abrasion (Taber-process; 100 rotations; CS-10F; 500 g)		ISO 9352	<4% Haze
Thickness of layer			4 – 8 µm
Adhesive properties 0,5/1,0/2,0 h immersion period at 80°C		DIN EN ISO 2409	GT 0/0/0
Thermal Properties			
Vicat diluting temperature VST/B 50	*	DIN EN ISO 306	115 °C
Constancy temperature HDT/A (1,8 N/mm²)	*	DIN EN ISO 75	100 °C
Temperature of permanent use	*	DIN 53446	80 °C
Linear coefficient of cubical thermal expansion (α) 0 – 50 °C	*	DIN 53752	70 x 10^{-6} K^{-1}
Heat conductibility (λ)	*	DIN 52612	0,19 W/mK
Specific heat (c)	*		1,47 J/gK
Optical Properties			
Refractive index			1,429 n_D 20
Transparency 380-780 nm D = 3 mm		DIN 5036	92 %
Deviation angle	*	DIN 52305	<3 Bg'
Refractive power	*	DIN 52305	<0,05 dpt
Electrical Properties			
Specific volume resistivity	*	DIN VDE 0303	10^{15} Ωcm
Dielectric strength	*	DIN EN 60243	>30 kV/mm
Special Properties			
Fire behaviour	*	DIN 4102	Fire classification B 2

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KRD Coatings GmbH

Chemical Resistance**

Acetone, 100%	resistant
Ammonia, 25%	resistant
Acetic acid, 100%	resistant
Gasoline mixture for MPA	resistant
Butyl acetate, 100%	not resistant
Citric acid, 95%	resistant
Dichloromethane, 100%	not resistant
Diesel fuel, 100%	resistant
Ethanol, 100%	resistant
Ethyl acetate, 100%	resistant
Formaldehyde, 37%	resistant
Milling Oil, 100%	resistant
Glass Cleaner, 100%	resistant
Isopropanol, 100%	resistant
Potassium hydroxide, 40%	resistant
Methyl ethyl ketone, 100%	not resistant
Sodium hydroxide, 30%	resistant
Nitro thinner, 100%	not resistant
Phosphoric acid, 85%	resistant
Nitric acid, 65%	not resistant
Nitric acid, 50%	resistant
Hydrochloric acid, 32%	resistant
Sulfuric acid, 98%	resistant
Special benzine, 100%	resistant
Toluene, 100%	resistant
Water, 100%	resistant

** Application of 3 – 5 ml liquid, cover, exposure 10 minutes

The information is based on presently available knowledge and experience. They do not release the processor from own tests and trails. A legally binding assurance of certain characteristics or the suitability for a specific purpose of use cannot be derived from it. Possible patent rights as well as existing laws or provisions must be taken into account by the receiver of our products, who bears the responsibility.

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