



KASIGLAS mar-protect

KASI®-PC Flex scratch-resistant coating for PC

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

Typical properties

Revision: 06/2013		Standard	KASI®-PC Flex
General properties			
Bulk density	*	ISO 1183	1,2 g/cm ³
Water absorption 24 h, 23°C	*	ISO 62	< 8 mg/kg
Mechanical characteristics			
Tensile strength	*	ISO 527	60 MPa
Elongation at tear	*	ISO 527	110 %
Modulus of elasticity	*	ISO 527	2200 MPa
Impact resistance	*	ISO 179	nicht gebrochen
Abrasion (Taber-process; 500 rotations; CS-10F; 500 g)		ISO 9352	≤ 8 % ΔHaze
Thickness of layer			4 – 8 μm
Adhesive properties 0,5/1,0/2,0 h boiling period at 95°C		ISO 2409	GT 0/0/0
Thermal characteristics			
Vicat diluting temperature VST/B 50	*	ISO 306	150 °C
Constancy temperature HDT/A (1,8 N/mm ²)*		ISO 75	135 °C
Temperature of permanent use	*	DIN 53446	115 °C
Linear coefficient of cubical thermal expansion (α) 0 - 50 °C	*	DIN 53752	65 x 10 ⁻⁶ K ⁻¹
Heat conductivity (λ)	*	DIN 52612	0,21 W/mK
Specific heat(c)	*		1,3 J/gK
Optical characteristics			
Refractive index			1,4425
Transparency 380-780 nm D = 3 mm		DIN 5036	> 86 %
Deviation angle	*	DIN 52305	≤ 5 Bg'
Refractive power	*	DIN 52305	≤ 0,1 dpt
Electrical characteristics			
Specific volume resistivity	*	DIN VDE 0303	10 ¹⁵ Ωcm
Dielectric strength	*	DIN EN 60243	> 30 kV/mm
Special characteristics			
Behaviour in fire	*	DIN 4102	Fire classification B 2

* The information applies to the carrier material.



Chemical Resistance**

Acetone, 100%	resistant
Ammonia, 25%	resistant
Acetic acid, 100%	resistant
Gasoline mixture for MPA	resistant
Butyl acetate, 100%	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%	resistant
Sodium hydroxide, 40%	resistant
Nitro thinner, 100%	resistant
Phosphoric acid, 85%	resistant
Nitric acid, 65%	resistant
Hydrochloric acid, 32%	resistant
Sulfuric acid, 98%	not resistant
Sulfuric acid, 85%	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 experiences. They do not release the processor from own tests and trials. 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.



Bending radius for KASI® PC-Flex in case of additional cold forming

Polycarbonate Thickness of layer	Smallest Bending radius
3 mm	450 mm
4 mm	600 mm
5 mm	750 mm
6 mm	900 mm
8 mm	1.200 mm
10 mm	1.500 mm
12 mm	1.800 mm

For concrete applications with even smaller radiuses we should be glad to be at your disposal for further consultancy.