

PRODUCT DESCRIPTION - DATA SHEET

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

Typical Properties

Revision: 06/2010

Standard
Linegard™ PC Flex
General Properties

Bulk Density	ISO 1183	1,2 g/cm ³
Water Absorption 24h, 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	not broken
Taber Abrasion (500 rotations; CS- 10F; 500g)	ISO 9352	≤ 8 % Haze
Thickness of Layer		4 - 8 μm

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 (a)	DIN 53752	65x10 ⁻⁶ k-
Heat Conductibility (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

Elastical Characteristics

Specific Volume Resistivity	DIN VDE 0303	10 ⁵ Ω cm
Dielectric Strength	DIN EN 60243	> 30 kV/mm

Special Characteristics

Behaviour in Fire	DIN 4102	Fire Classification B 2
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* The information applies to 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

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 can not 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.

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

Bending Radius for Linegard™ 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	1200 mm
10 mm	1500 mm
12 mm	1800 mm

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

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