

テクニカルデータシート

EtroX[®] I CM UHT natural

PI

製品の特徴

- 優れた熱酸化安定性 (450°Cまで使用可能)
- 熱下での高い寸法安定性
- 耐熱性
- 高いクリープ耐性
- 低吸湿性

製品の用途例

- エレクトロニクス
 - 半導体-バックエンド用途
 - 半導体-ウエハ製造
 - 半導体-CMP
- 半導体-バックエンド用途
- 車両建造
- 機械工学

	試験法	単位	値
一般的物性			
密度	DIN EN ISO 1183-1	g / cm ³	1,43
吸水率	DIN EN ISO 62 (23°C / 24h)	%	0,06
吸水率	DIN EN ISO 62 (23°C / 48h)	%	0,1
吸水率	DIN EN ISO 62 (23°C / 3 Weeks)	%	0,4
機械的物性			
引張破壊呼び歪	DIN EN ISO 527	%	4
引張弾性率	DIN EN ISO 527	MPa	4800
引張強度	DIN EN ISO 527	MPa	142
衝撃強度	DIN EN ISO 179	kJ / m ²	40
ノッチ付き衝撃耐性	DIN EN ISO 179	kJ / m ²	3
シヨア硬度	DIN EN ISO 868	scale D	90
曲げ弾性率	ASTM D790	ksi	750
圧縮強度	DIN EN ISO 604	MPa	4000
熱的物性			
ガラス転移温度	ISO 11357-3	°C	270
使用温度 (短期、最大)	平均値	°C	450
荷重たわみ温度 (1.80MPa)	ISO 75-1/-2	°C	265
荷重たわみ温度 (0.45MPa)	ISO 75-1/-2	°C	304

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	試験法	単位	値
電気的物性			
体積固有抵抗	DIN EN 62631-3-1	$\Omega \cdot \text{cm}$	$>10^{11}$
Dielectric constant @ 1MHz	DIN EN IEC 62631-2-1		3,3

The short-term maximum application temperature only applies to very low mechanical stress for a few hours. The long-term maximum application temperature is based on the thermal ageing of plastics by oxidation, resulting in a decrease of the mechanical properties. This applies to an exposure to temperatures for at least 5.000 hours causing a 50% loss of the tensile strength from the original value (measured at room temperature). This value says nothing about the mechanical strength of the material at high application temperatures. In case of thick-walled parts, only the surface layer is affected by oxidation from high temperatures. With the addition of antioxidants, a better protection of the surface layer is achieved. In any case, the center area of the material remains unaffected. The minimum application temperature is basically influenced by possible stress factors like impact and/or shock under application. The values stated refer to a minimum degree of impact stress. The electrical properties as stated result from measurements on natural, dry material. With other colours (in particular black) or saturated material, there may be clear differences in the electrical properties. The data stated above are average values ascertained by statistical tests on a regular basis. They are in accordance with DIN EN 15860. They serve as information about our products and are presented as a guide to choose from our range of materials. This, however, does not include an assurance of specific properties or the suitability for particular application purposes that are legally binding. Since the properties also depend on the dimension of the semi-finished products and the degree of crystallization (e.g. nucleating by pigments), the actual values of the properties of a particular product may differ from the indicated values.



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