

## Technický datový list

EtroX<sup>®</sup> I CM přírodní

PI

## Vlastnosti produktu

- Heat resistant
- High mechanical strength
- Low creep tendency
- High impact resistance
- High stiffness
- Good dimensional stability

## Typické oblasti použití

- Elektronika
- Polovodičový průmysl
- Letectví a kosmonautika
- Výroba vozidel
- Semiconductor Front-End applications
- Semiconductor Wafer Handling
- Semiconductor Back-End applications
- Semiconductor High and low temperature
- Semiconductor Dicing

	Testovací metoda	Jednotka	Orientační hodnota
<b>Obecné vlastnosti</b>			
Hustota	DIN EN ISO 1183-1	g / cm <sup>3</sup>	1,37
Absorpce vody	DIN EN ISO 62 (23°C / 24h)	%	0,6
Absorpce vody	DIN EN ISO 62 (23°C / 48h)	%	0,8
Absorpce vody	DIN EN ISO 62 (23°C / 3 týdny)	%	2,4
<b>Mechanické vlastnosti</b>			
Prodloužení při přetržení	DIN EN ISO 527	%	8
Modul pružnosti v tahu	DIN EN ISO 527	MPa	3600
Pevnost v tahu	DIN EN ISO 527	MPa	145
Vrubová houževnatost	DIN EN ISO 179	kJ / m <sup>2</sup>	10
Tvrdość Shore	DIN EN ISO 868	scale D	89
Tvrdość kuličkového vtisku	DIN EN ISO 2039-1	MPa	240
Modul pružnosti v tlaku	DIN EN ISO 604	MPa	4200
Tensile creep modulus, 1h	ISO 899-1	MPa	3390
Tensile creep modulus, 1000h	ISO 899-1	MPa	2730

[ri-inquiry@roechling.com](mailto:ri-inquiry@roechling.com) • [www.roechling.com/industrial/materials](http://www.roechling.com/industrial/materials)



	Testovací metoda	Jednotka	Orientační hodnota
<b>Tepelné vlastnosti</b>			
Teplota přechodu do skelného stavu	ISO 11357-3	°C	323
Provozní teplota krátkodobá (max.)	Průměr	°C	380
Střední koeficient lineární teplotní roztažnosti	ISO 11359-2	K <sup>-1</sup>	41
Teplota tepelné deformace	DIN EN ISO 75	°C	319
Teplota průhybu při zatížení, 1,80 MPa	ISO 75-1/-2	°C	319
Teplota průhybu při zatížení, 0,45 MPa	ISO 75-1/-2	°C	343
<b>Elektrické vlastnosti</b>			
Objemový odpor	DIN EN 62631-3-1	Ω * cm	> 10 <sup>15</sup>
Relativní permitivita @ 100 Hz	IEC 60250		4,2
Relativní permitivita @ 1 kHz	IEC 60250		4,2
Relativní permitivita @ 10 kHz	IEC 60250		4,1
Relativní permitivita @ 100 kHz	IEC 60250		4,1
Relativní permitivita @ 10 GHz	IEC 61189-2-721		3,4
Relativní permitivita @ 40 GHz	IEC 61189-2-721		3,3
Relativní permitivita @ 100 GHz	IEC 61189-2-721		3,2
Měrný objemový odpor	IEC 60093	Ωm	8*10 <sup>13</sup>
118 / 5 000 Měrný povrchový odpor	IEC 60093	Ω	5*10 <sup>15</sup>
Relativní permitivita, 100 Hz	IEC 62631-2-1	-	3,5
Relativní permitivita, 1 MHz	IEC 62631-2-1	-	3,4
Ztrátový činitel, 1 MHz	IEC 62631-2-1	E-4	80
Elektrická pevnost	IEC 60243-1	kV / mm	34

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.

[ri-inquiry@roechling.com](mailto:ri-inquiry@roechling.com) • [www.roechling.com/industrial/materials](http://www.roechling.com/industrial/materials)

