

Technical Data Sheet

Durostone[®] EPX -M

Typical characteristics

- High mechanical and dielectric strength
- Manufactured by filament winding technology and consists of a special (EP) epoxy resin matrix reinforced with e-glass roving

Typical industries

- Generator and Motor
- Healthcare
- Electrical Industry
- Mechanical Engineering Industry
- Oil-filled transformers
- Hydrogen Energy

	Test method	Unit	Guideline value
Mechanical properties			
Density	ISO 1183	g / cm ³	2,1
Flexural strength [⊥]	ISO 178	MPa	700
Flexural strength [⊥] +150°C	ISO 178	MPa	350
Modulus of elasticity in flexion [⊥]	ISO 178	MPa	35000
Compressive strength (tangential)	ISO 604	MPa	500
Compressive strength (axial)	ISO 604	MPa	110
Compressive strength (radial)	ISO 604	MPa	110
Tensile strength II	ISO 527	MPa	800
Impact strength (radial)	ISO 179	kJ / m ²	250
Thermal properties			
Thermal conductivity [⊥]		W / (m * K)	≈ 0,35
Temperature index	IEC 60216	T.I.	180
Insulation class	IEC 60085	/	H
TG-Value	DSC	°C	150
Coefficient of linear expansion (tangential)	TMA	10 ⁻⁶ x K ⁻¹	5 - 10
coefficient of linear expansion (axial)	TMA	10 ⁻⁶ x K ⁻¹	20 - 30
coefficient of linear expansion (radial)	TMA	10 ⁻⁶ x K ⁻¹	25 - 40
Dielectrical properties			

	Test method	Unit	Guideline value
Electric strength 90°C under oil \perp	IEC 60243	kV / mm	5
Electric strength 90°C under oil	IEC 60243	kV/25mm	35
Relative permittivity (50 Hz)	IEC 60250	ϵ_r	≈ 5
Dielectric loss factor (50 Hz)	IEC 60250	$\tan \delta$	$\approx 0,03$
Insulation resistance after 24 h water immersion	IEC 60167	Ohm	5×10^9
Comparative tracking index	EN 60112	CTI	225

= perpendicular to the lamination || = parallel to the lamination

The data stated above are average values verified on the basis of regular statistical tests and controls. All information in this publication is based on current technical knowledge and experience. Due to the large number of possible influences during processing and application, it does not exempt the user/processor from carrying out their own tests and trials. Responsibility for the evaluation of the end product for the intended use and compliance with the applicable relevant legal requirements lies exclusively with the user/processor as well as the distributor of the respective product/end product. Suggested uses do not constitute an assurance of suitability for the recommended purpose. The information in this publication and our declarations in Connection with this publication do not constitute acceptance of a guaranteed or warranted characteristic. Guarantee declarations require our separate express written declaration in order to be effective. We reserve the right to adapt the product to technical progress and new developments. The products described in this publication are only sold to customers with the appropriate expertise and not to consumers. Please do not hesitate to contact us if you have any questions or if you experience any specific application problems. If the application for which our products are used is subject to an official approval requirement, the user/processor is responsible for obtaining these approvals. Our application recommendations do not exempt the user/processor from the obligation to examine and, if necessary, clarify the possibility of infringements of third-party rights. In all other respects, we refer to our General Terms and Conditions (GTC). These are available at: www.roechling-industrial.com/gtc

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Page 2 / 2 (Dates in DD/MM/YYYY)

