Technical data sheet

CENTROLYTE FG / PET FG

Physical Properties

	Value	Unit	Verification
Density	1.39	g/cm³	ISO 1183
Moisture pick-up till saturation (in normal climate 23 °C / 50% r.h.)	0.30	%	ISO 62
Water absorption till saturation (in water at 23 °C)	0.50	%	ISO 62

Mechanical Properties

	Value	Unit	Verification
Tensile stress at yield [v = 50 mm/min]	90	MPa	ISO 527-2
Tensile stress at break [v = 5 mm/min]	-	MPa	ISO 527-2
Nominal percentage elongation at break	15	%	ISO 527-2
Tensile modulus of elasticity	3600	MPa	ISO 527-2
Flexural modulus of elasticity	-	MPa	ISO 178
Ball indentation hardness (value at 30 sec.)	170	MPa	ISO 2039-1
Rockwell hardness (measured with test pieces 10 mm thick)	M 95		ISO 2039-2
Charpy impact strength (+23 °C)	>50	kJ/m²	ISO 179/1eU
Charpy impact strength - notched (+23 °C)	3	kJ/m²	ISO 179/1eA

Electric Properties

	Value	Unit	Verification
Specific insulation resistance [≥]	10^{13}	Ohm · m	IEC 60093
Specific surface resistance [≥]	10^{14}	Ohm	IEC 60093
Dielectric constant (at 1 MHz)	3.2	10^{6} Hz	IEC 60250
Dielectric constant (at 100 Hz)	3.4	10^{2} Hz	IEC 60250
Dissipation factor (at 1 MHz)	0.014	10^{6} Hz	IEC 60250
Dissipation factor (at 100 Hz)	0.001	10^{2} Hz	IEC 60250
Dielectric strength K20/K20 (in transformer oil)	22	kV/mm	IEC 60243-1
Comparative tracking index (CTI)	600		IEC 60112

Thermal Properties

	Value	Unit	Verification
Temperature for usage in air (max. short term)	160	°C	
Temperature for usage in air (max. lasting)	115	°C	
Minimum service temperature in air	-20	°C	
Heat distortion temperature (HDT A process)	75	°C	ISO 75-2
Coefficient of linear expansion (at length, 23 – 60 °C)	0.6	$10^{-4/K}$	ISO 11359
Thermal conductivity (+23 °C)	0.27	W/(K · m)	DIN 52612
Flammability according UL Standard (thickness 3 and 6 mm)	HB	Class	UL 94
Vicat softening temperature (VST/B/50)	-	°C	ISO 306
Melting point (DSC, 10 K/min)	255	°C	ISO 3146

The noted data correspond to our latest state of knowledge. The suitability of the products for special applications cannot be guaranteed legally binding, due to the a.m. properties.

Revision: 15.03.2013