Technical data sheet

CENTRODAL LF / POM LF

Physical Properties	Value	Unit	Verification
Density	1.45	g/cm³	ISO 1183
Moisture pick-up till saturation (in normal climate 23 ℃ / 50% r.h.)	0.20	%	ISO 62
Water absorption till saturation (in water at 23 ℃)	0.70	%	ISO 62

Mechanical Properties	Value	Unit	Verification
Tensile stress at yield [v = 50 mm/min]	63	MPa	ISO 527-2
Tensile stress at break [v = 5 mm/min]	-	MPa	ISO 527-2
Nominal percentage elongation at break	17	%	ISO 527-2
Tensile modulus of elasticity	2800	MPa	ISO 527-2
Flexural modulus of elasticity	2700	MPa	ISO 178
Ball indentation hardness (value at 30 sec.)	147	MPa	ISO 2039-1
Rockwell hardness (measured with test pieces 10 mm thick)	M 97		ISO 2039-2
Charpy impact strength (+23 ℃)	120	kJ/m²	ISO 179/1eU
Charpy impact strength - notched (+23 ℃)	5.5	kJ/m²	ISO 179/1eA

Electric Properties	Value	Unit	Verification
Specific insulation resistance [≥]	10^3	Ohm · m	IEC 60093
Specific surface resistance [≥]	10^2	Ohm	IEC 60093
Dielectric constant (at 1 MHz)	-	10^6 Hz	IEC 60250
Dielectric constant (at 100 Hz)	-	10^2 Hz	IEC 60250
Dissipation factor (at 1 MHz)	-	10^6 Hz	IEC 60250
Dissipation factor (at 100 Hz)	-	10^2 Hz	IEC 60250
Dielectric strength K20/K20 (in transformer oil)	-	kV/mm	IEC 60243-1
Comparative tracking index (CTI)	-		IEC 60112

Thermal Properties	Value	Unit	Verification
Temperature for usage in air (max. short term)	140	℃	
Temperature for usage in air (max. lasting)	100	℃	
Minimum service temperature in air	-20	℃	
Heat distortion temperature (HDT A process)	100	℃	ISO 75-2
Coefficient of linear expansion (at length, 23 – 60 ℃)	1.1	$10^{-4/K}$	ISO 11359
Thermal conductivity (+23 ℃)	0.30	W/(K · m)	DIN 52612
Flammability according UL Standard (thickness 3 and 6 mm)	HB	Class	UL 94
Vicat softening temperature (VST/B/50)	150	℃	ISO 306
Melting point (DSC, 10 K/min)	166	℃	ISO 3146

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