

## CENTROPHEN GF / PPE GF 30

Physical Properties			
	Value	Unit	Verification
Density	1.30	g/cm <sup>3</sup>	ISO 1183
Moisture pick-up till saturation (in normal climate 23 °C / 50% r.h.)	0.06	%	ISO 62
Water absorption till saturation (in water at 23 °C)	0.20	%	ISO 62
Mechanical Properties			
	Value	Unit	Verification
Tensile stress at yield [ $v = 50$ mm/min]	-	MPa	ISO 527-2
Tensile stress at break [ $v = 5$ mm/min]	100	MPa	ISO 527-2
Nominal percentage elongation at break	1.5	%	ISO 527-2
Tensile modulus of elasticity	8000	MPa	ISO 527-2
Flexural modulus of elasticity	6000	MPa	ISO 178
Ball indentation hardness (value at 30 sec.)	130	MPa	ISO 2039-1
Rockwell hardness (measured with test pieces 10 mm thick)	-		ISO 2039-2
Charpy impact strength (+23 °C)	25	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength - notched (+23 °C)	8-10	kJ/m <sup>2</sup>	ISO 179/1eA
Electric Properties			
	Value	Unit	Verification
Specific insulation resistance [ $\geq$ ]	$10^{15}$	Ohm · m	IEC 60093
Specific surface resistance [ $\geq$ ]	$10^{15}$	Ohm	IEC 60093
Dielectric constant (at 1 MHz)	2.9	$10^6$ Hz	IEC 60250
Dielectric constant (at 100 Hz)	-	$10^2$ Hz	IEC 60250
Dissipation factor (at 1 MHz)	0.001	$10^6$ Hz	IEC 60250
Dissipation factor (at 100 Hz)	-	$10^2$ Hz	IEC 60250
Dielectric strength K20/K20 (in transformer oil)	18	kV/mm	IEC 60243-1
Comparative tracking index (CTI)	250		IEC 60112
Thermal Properties			
	Value	Unit	Verification
Temperature for usage in air (max. short term)	-	°C	
Temperature for usage in air (max. lasting)	-	°C	
Minimum service temperature in air	-	°C	
Heat distortion temperature (HDT A process)	140	°C	ISO 75-2
Coefficient of linear expansion (at length, 23 – 60 °C)	-	$10^{-4}/K$	ISO 11359
Thermal conductivity (+23 °C)	0.28	W/(K · m)	DIN 52612
Flammability according UL Standard (thickness 3 and 6 mm)	HB	Class	UL 94
Vicat softening temperature (VST/B/50)	145	°C	ISO 306
Melting point (DSC, 10 K/min)	290	°C	ISO 3146