Technical data sheet

CENTROMID 6.6 / PA 6.6

Physical Properties

	Value	Unit	Verification
Density	1.14	g/cm³	ISO 1183
Moisture pick-up till saturation (in normal climate 23 °C / 50% r.h.)	2.40	%	ISO 62
Water absorption till saturation (in water at 23 °C)	8	%	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	>40	%	ISO 527-2
Tensile modulus of elasticity	3100	MPa	ISO 527-2
Flexural modulus of elasticity	2800	MPa	ISO 178
Ball indentation hardness (value at 30 sec.)	160	MPa	ISO 2039-1
Rockwell hardness (measured with test pieces 10 mm thick)	M 88		ISO 2039-2
Charpy impact strength (+23 °C)	n.br.	kJ/m²	ISO 179/1eU
Charpy impact strength - notched (+23 °C)	6	kJ/m²	ISO 179/1eA

Electric Properties

	Value	Unit	Verification
Specific insulation resistance [≥]	10^{12}	Ohm · m	IEC 60093
Specific surface resistance [≥]	10^{13}	Ohm	IEC 60093
Dielectric constant (at 1 MHz)	3.3	10^{6} Hz	IEC 60250
Dielectric constant (at 100 Hz)	3.8	10^{2} Hz	IEC 60250
Dissipation factor (at 1 MHz)	0.020	10^{6} Hz	IEC 60250
Dissipation factor (at 100 Hz)	0.013	10^{2} Hz	IEC 60250
Dielectric strength K20/K20 (in transformer oil)	27	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)	180	°C	
Temperature for usage in air (max. lasting)	95	°C	
Minimum service temperature in air	-30	°C	
Heat distortion temperature (HDT A process)	85	°C	ISO 75-2
Coefficient of linear expansion (at length, 23 – 60 °C)	0.8	$10^{-4/K}$	ISO 11359
Thermal conductivity (+23 °C)	0.28	W/(K · m)	DIN 52612
Flammability according UL Standard (thickness 3 and 6 mm)	HB(V 2*)	Class	UL 94
Vicat softening temperature (VST/B/50)	-	°C	ISO 306
Melting point (DSC, 10 K/min)	260	°C	ISO 3146

n.br. = no break
* = at thickness 3 mm

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: 04.02.2019