

Technical Properties of: ZELLAMID® 250 (PA 6.6)					
Edition / Date: 2 / 01-01-2016					
Characteristics		Unit	Test method	Condition of specimen	Value
MECHANICAL PROPERTIES					
Yield stress	23 °C	MPa	ISO 527		86
Tensile strength	23 °C	MPa	ISO 527		80
Elongation at break	23 °C	%	ISO 527		> 50
Tensile E-Modulus		MPa	ISO 527		3 300
Bending Modulus		MPa	ISO 178		3 200
Flexural Strength		MPa	ISO 178		120
Charpy impact strength	23 °C	kJ/m ²	ISO 179/1eU		no break
Charpy Notched Impact Strength	23 °C	kJ/m ²	ISO 179/1eA		7
Shore D hardness			ISO 868		82
Ball Hardness		MPa	ISO 2039-1		155
Compressive modulus		MPa	ISO 604		2 600
Compressive Stress	1 % Nominal Strain	MPa	ISO 604		27
	2 % Nominal Strain	MPa	ISO 604		53
	5 % Nominal Strain	MPa	ISO 604		88
THERMAL PROPERTIES					
HDT-A	1,82 MPa	°C	ISO 75		80
Glass Transition Temperature		°C	ISO 3146		60
Melting Temperature		°C	ISO 3146		260
Maximum Service Temperature for Few Hours Operation		°C	-		160
Service temperature long term		°C	-		90
Minimum service temperature		°C	-		-30
Specific Heat Capacity		J/(g.K)	IEC 1006	dry	1.6
Coefficient of thermal expansion		1/K10 ⁻⁵	DIN 53752		8
Thermal Conductivity	Method A	W/(K.m)	-	dry	0.3
DIELECTRIC PROPERTIES					
Dielectric Constant	1 MHz		IEC 60250		3.3
Dissipation Factor			IEC 60250		0.02
Dielectric Strength		KV/mm	IEC 60243		25
Volume Resistivity		Ω.cm	IEC 60093		10 ¹³
Surface Resistivity		Ω	IEC 60093		10 ¹²
PHYSICAL PROPERTIES					
Density	23 °C	g/cm ³	ISO 1183-1		1.14
BURNING BEHAVIOUR					
Flammability classification*			UL 94		HB
GENERAL					
Water Absorption	23 °C, saturation	%	ISO 62		8.5
	23 °C / 50% RH	%	ISO 62		2.7
Food contact			-		+
Food contact approval			FDA		+
			EU 10/2011		-
Dimensional Stability			-		O
Coefficient of Friction			-		+
Wear Resistance			-		O
RESISTANCE					
Chemical Resistance			-		+

Resistance to wear tested by a pin / rotating disc test according DIN ISO 7148-2 under following conditions: Ra = 0.35 - 0.45 µm (steel disc), v = 0.3 m/s, p = 3 N/mm², time T > 16 h

Explanation Symbols: + good 0 neutral - not good / actually not available

Tests are done under dry conditions at room temperature

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