

Technical Properties of:		ZELLAMID® 202 (PA 6)			
Edition / Date:		2 / 01-01-2016			
Characteristics	Unit	Test method	Condition of specimen	Value	
MECHANICAL PROPERTIES					
Yield stress	23 °C	MPa	ISO 527		79
Tensile strength	23 °C	MPa	ISO 527		80
Elongation at break	23 °C	%	ISO 527		70
Tensile E-Modulus		MPa	ISO 527		3 200
Bending Modulus		MPa	ISO 178		3 000
Flexural Strength		MPa	ISO 178		110
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		6.4
Shore D hardness			ISO 868		82
Ball Hardness		MPa	ISO 2039-1		172
Compressive modulus		MPa	ISO 604		2 400
Compressive Stress	1 % Nominal Strain	MPa	ISO 604		25
	2 % Nominal Strain	MPa	ISO 604		49
	5 % Nominal Strain	MPa	ISO 604		79
THERMAL PROPERTIES					
HDT-A	1,82 MPa	°C	ISO 75		70
Melting Temperature		°C	ISO 3146		220
Maximum Service Temperature for Few Hours Operation		°C	-		170
Service temperature long term		°C	-		100
Minimum service temperature		°C	-		-40
Specific Heat Capacity		J/(g.K)	IEC 1006	dry	1.7
Coefficient of thermal expansion		1/K10 ⁻⁵	DIN 53752		≥ 7 ≤ 10
Thermal Conductivity	Method A	W/(K.m)	-	dry	0.33
DIELECTRIC PROPERTIES					
Dielectric Constant	1 MHz		IEC 60250		3.5
Dissipation Factor Tan δ	1 MHz		IEC 60250		0.03
Dielectric Strength		KV/mm	IEC 60243		25
Volume Resistivity		Ω.cm	IEC 60093		10 ¹³
Surface Resistivity		Ω	IEC 60093		10 ¹³
PHYSICAL PROPERTIES					
Density	23 °C	g/cm ³	ISO 1183-1		1.13
BURNING BEHAVIOUR					
Flammability classification*			UL 94		HB
GENERAL					
Water Absorption	23 °C, saturation	%	ISO 62		9
	23 °C / 50% RH	%	ISO 62		3
Food contact			-		+
Food contact approval			FDA		+
			EU 20/2011		-
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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