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klepsch group - the plastic power network

ZELL METALL
ENGINEERING PLASTICS

Technical Properties of:	**ZELLAMID® 250 GF30 (PA 6.6 filled)**
Edition / Date:	2 / 01-01-2016

Characteristics		Unit	Test method	Condition of specimen	Value
MECHANICAL PROPERTIES					
Tensile strength	23 °C	MPa	ISO 527		110
Elongation at break	23°C	%	ISO 527		8
Tensile E-Modulus		MPa	ISO 527		5500
Bending Modulus		MPa	ISO 178		5300
Flexural Strength		MPa	ISO 178		170
Charpy impact strength	23 °C	kJ/m²	ISO 179/1eU		37
Charpy Notched Impact Strength	23 °C	kJ/m²	ISO 179/1eA		5.8
Shore D hardness			ISO 868		85
Ball Hardness		MPa	ISO 2039-1		252
Compressive modulus		MPa	ISO 604		3500
Compressive Stress	1 % Nominal Strain	MPa	ISO 604		33
	2 % Nominal Strain	MPa	ISO 604		70
	5 % Nominal Strain	MPa	ISO 604		115
THERMAL PROPERTIES					
HDT-A	1,82 MPa	°C	ISO 75		150
Melting Temperature		°C	ISO 3146		260
Maximum Service Temperature for Few Hours Operation		°C	-		200
Service temperature long term		°C	-		130
Minimum service temperature		°C	-		-20
Specific Heat Capacity		J/(g.K)	IEC 1006	dry	1.5
Coefficient of thermal expansion		1/K10^(-5)	DIN 53752		5
Thermal Conductivity	Method A	W/(K.m)	-	dry	0.27
DIELECTRIC PROPERTIES					
Dielectric Strength		KV/mm	IEC 60243		30
Volume Resistivity		Ω.cm	IEC 60093		$> 10^{12}$
Surface Resistivity		Ω	IEC 60093		10^{11}
Resistance to Tracking (CTI)			IEC 60112		475
PHYSICAL PROPERTIES					
Density	23°C	g/cm³	ISO 1183-1		1.35
BURNING BEHAVIOUR					
Flammability classification*			UL 94		HB
GENERAL					
Water Absorption	23°C, saturation	%	ISO 62		5.5
	23°C / 50% RH	%	ISO 62		1.5
Food contact			-		-
Food contact approval			FDA		-
			EU 10/2011		-
Dimensional Stability			-		+
Coefficient of Friction			-		O
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