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TECHNICAL PROPERTIES OF PA6 C filled

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Characteristics		Unit	Test method	Condition of specimen	Value
PHYSICAL PROPERTIES					
Density	23°C	g/cm³	ISO 1183		1.15
MECHANICAL PROPERTIES					
Yield stress	23°C	MPa	ISO 527	dry	85
	23°C	MPa	ISO 527	moist	60
Elongation at break		%	ISO 527	dry	40
		%	ISO 527	moist	100
Tensile E-Modulus	23°C	MPa	ISO 527	dry	3100
		MPa	ISO 527	moist	1800
Modulus of elasticity resulting from bending test	23 °C	MPa	ISO 178	dry	3300
		MPa	ISO 178	moist	2000
Flexural Strength	23 °C	MPa	ISO 178	dry	130
		MPa	ISO 178	moist	50
Impact strength	pendulum striking machine 0.1 DIN 51222	kJ/m²	ISO 179	dry	no break
	pendulum striking machine 0.1 DIN 51222	kJ/m²	ISO 179	moist	no break
Notched-bar impact strength		kJ/m²	ISO 179	dry	> 15
		kJ/m²	ISO 179	moist	> 5
Ball indentation hardness H358/30		MPa	ISO 2039-1	dry	150
		MPa	ISO 2039-1	moist	115
Creep rate stress at 1% elongation	after 1,000 h	MPa	DIN 53444		> 7
Coefficient of friction against steel	(dry running)		-	dry	0.32
	(dry running)		-	moist	0.37
Sliding wear against steel	(dry running)	µm/km	-		0.1
THERMAL PROPERTIES					
Melting Temperature		°C	ISO 3146		220
Thermal Conductivity		W/(m*K)	DIN 52612		0.23
Specific thermal capacity		J/(g.K)	-		1.7
Coefficient of thermal expansion	temperature range: +23 to +60 °C	10^-5xK^-1	-		≥ 7 ≤ 8
Operating temperature range	long term (months)	°C	-		≥ -40 ≤ 105
	short term (max. 1 h)	°C	-		160
DIELECTRIC PROPERTIES					
Dielectric Constant	1 MHz		IEC 60250	dry	3.7
Dissipation Factor Tan δ	1 MHz		IEC 60250	dry	0.03
Volume Resistivity		Ω.cm	IEC 60093	dry	10 ¹⁶
		Ω.cm	IEC 60093	moist	10 ¹³
Surface Resistivity		Ω	IEC 60093	dry	10 ¹⁴
		Ω	IEC 60093	moist	10 ¹³
Dielectric Strength		KV/mm	IEC 60243	dry	50
		KV/mm	IEC 60243	moist	20
Creep current resistance			IEC 60112		CTI600
BURNING BEHAVIOUR					
Flammability classification*			UL 94		HB
GENERAL					
Moisture absorption in normal climate	saturation	%	DIN 53715		2.2
Water Absorption	23°C, saturation	%	ISO 62		6.5

Nota: i valori indicati in tabella sono medi