

TECHNICAL PROPERTIES OF PA 6 + FV

09/2010

Property	Unit	Test method	Condition of specimen	PA 6.6 + 30%Glassfibre
MECHANICAL PROPERTIES				
Tensile strength at break	MPa	ISO 527	dry	100
	MPa	ISO 527	moist	
Elongation at break	%	ISO 527	dry	8
	%	ISO 527	moist	
Modulus of elasticity in tension	MPa	ISO 527	dry	4800
	MPa	ISO 527	moist	
Charpy impact strength	+ 23°C	ISO 179/1eU	dry	20
	- 40°C		dry	
Charpy notched impact strength		ISO 179/1eA	dry	
			moist	
Hardness shore scale D		ISO 868	dry	85
Time yield limit $\sigma_{1/1000}$	23°C/50% RH	ISO 899	moist	
	100°	ISO 899	dry	
Apparent modulus E _{C/1000 20}	23°C/50% RH	ISO 899	moist	
THERMAL PROPERTIES				
Heat distortion temperature,	Method A	ISO 75	dry	250
	Method B	ISO 75	dry	250
Melting point	Method A	ISO 3146	-	255
Maximum service temperature for few hours operation		-	-	200
TEP 5 000 hours (50% of tensile strength) ¹⁾		IEC 216	-	
TEP 20 000 hours (50% of tensile strength) ¹⁾		IEC 216	-	150
Thermal coefficient of linear expansion		DIN 53452	dry	2 - 3
Thermal conductivity	Method A		dry	0,27
Specific heat capacity		IEC 1006	dry	1,5
DIELECTRIC PROPERTIES				
Dielectric constant	1 MHz	IEC 250	dry	
		IEC 250	moist	
Dissipation factor tan δ	1 MHz	IEC 250	dry	
		IEC 250	moist	
Dielectric strength	KV/mm	IEC 243	dry	30
	KV/mm	IEC 243	moist	
Volume resistivity	$\Omega \cdot \text{cm}$	IEC 93	dry	$> 10^{12}$
	$\Omega \cdot \text{cm}$	IEC 93	moist	
Surface resistivity R _{0A}	Ω	IEC 93	dry	10^{11}
	Ω	IEC 93	moist	
Resistance to tracking	KA/ KB method	IEC 112	dry/moist	
	KC method	IEC 112	dry/moist	
MISCELLANEOUS PROPERTIES				
Mass density	Method D, E	ISO 1183	dry	1,35
Moisture absorption at 23°C, 50% RH	Saturation	ISO 1110	-	1,5
Water absorption at 23 °C	Saturation	ISO 62	-	5,5
Fire performance	Flameability Acc. VDE	VDE 0304	dry	
	Flameability of interior materials in passenger cars h>1mm	FMVSS 302	moist	
	Flameability according UL Standard (thickness of specimen 1,6 mm)	UL 94	-	HB
Resistance to wear ²⁾		ISO 7148-2	dry	

- Datas of resin only
- Made by a pin / rotating disc test according DIN-ISO 7148-2 under following conditions: R_a = 0,35 – 0,45 μm (steel disc), v = 0,3 m/s, p = 3 N/mm², time T>16h

All statements, technical information and recommendations contained in this brochure are presented in good faith, but all information given is without warranty and liability.