



TECHNICAL PROPERTIES OF POM-C

03/2010

Property		Unit	Test method ISO/IEC*	Condition of specimen	POM-C 900 SW POM-C black
MECHANICAL PROPERTIES					
Tensile strength at break		MPa	ISO 527	dry	70
		MPa	ISO 527	moist	
Elongation at break		%	ISO 527	dry	40
		%	ISO 527	moist	
Modulus of elasticity in tension		MPa	ISO 527	dry	3000
		MPa	ISO 527	moist	
Charpy impact strength	+ 23°C	kJ/m²	ISO 179/1eU	dry	no break
	- 40°C	kJ/m²		dry	80
Charpy notched impact strength	+ 23°C	kJ/m²	ISO 179/1eA	dry	
	- 40°C	kJ/m²		moist	
Hardness shore scale D			ISO 868	dry	81
Time yield limit $\sigma_{1/1000}$	23°C/50% RH	MPa	ISO 899	moist	14
	100°	MPa	ISO 899	dry	
Apparent modulus E $C/1000, 20$	23°C/50% RH	MPa	ISO 899	moist	
THERMAL PROPERTIES					
Heat distortion temperature,	Method A	°C	ISO 75	dry	110
	Method B	°C	ISO 75	dry	160
Melting point	Method A	°C	ISO 3146	-	164-168
Maximum service temperature for few hours operation		°C	- -	-	
TEP 5 000 hours (50% of tensile strength) ¹⁾		°C	IEC 216	-	
TEP 20 000 hours (50% of tensile strength) ¹⁾		°C	IEC 216	-	100
Thermal coefficient of linear expansion		1/K.10 ⁻⁵	DIN 53452	dry	11
Thermal conductivity	Method A	W/(K.m)		dry	
Specific heat capacity		J/(g.K)	IEC 1006	dry	1,5
DIELECTRIC PROPERTIES					
Dielectric constant	1 MHz	-	IEC 250	dry	3,8
		-	IEC 250	moist	
Dissipation factor tan δ	1 MHz	-	IEC 250	dry	0,024
		-	IEC 250	moist	
Dielectric strength		KV/mm	IEC 243	dry	> 20
		KV/mm	IEC 243	moist	
Volume resistivity		Ω .cm	IEC 93	dry	10 ¹⁵
		Ω .cm	IEC 93	moist	
Surface resistivity		Ω	IEC 93	dry	
		Ω	IEC 93	moist	
Resistance to tracking	KA/ KB method	-	IEC 112	dry/moist	KB > 600
	KC method	-	IEC 112	dry/moist	
MISCELLANEOUS PROPERTIES					
Mass density	Method D, E	g/cm³	ISO 1183	dry	1,41-1,43
Moisture absorption at 23°C, 50% RH	Saturation	%	ISO 1110	-	0,2
Water absorption at 23 °C	Saturation	%	ISO 62	-	0,25
Fire performance	Flameability Acc. VDE		VDE 0304	dry	BH 3-25mm/min
	Flameability of interior materials in passanger cars h>1mm	mm/min	FMVSS 302	moist	
	Flameability according UL Standard (thickness of specimen 1,6 mm)	-	UL 94	-	HB
Resistance to wear ²⁾		µm/km	ISO 7148-2	dry	

- Datas of resin only
- Made by a pin / rotating disc test according DIN-ISO 7148-2 under following conditions: $R_a = 0,35 - 0,45 \mu$ m (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.



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