

Pomalloy® SDX (ESd POM – Ivory Color) & Pomalloy® CF (Conductive POM – Black)

Material Data Sheets – Available Exclusively from **PROFESSIONAL PLASTICS, INC.**

www.professionalplastics.com – sales@proplas.com – (888) 995-7767

Property	Unit	Test method	Condition of specimen	POMALLOY SDX - ESd Ivory Color	POMALLOY CF - Black Conductive	
MECHANICAL PROPERTIES						
Tensile strength at break	MPa	ISO 527	dry	40	69	
	MPa	ISO 527	moist			
Elongation at break	%	ISO 527	dry	72	11	
	%	ISO 527	moist			
Modulus of elasticity in tension	MPa	ISO 527	dry	1380	3600	
	MPa	ISO 527	moist			
Charpy Impact strength	+ 23°C	kJ/m ²	ISO 179/1eU	dry	no break	80
	- 40°C	kJ/m ²	ISO 179/1eU	dry		
Charpy Impact strength (notched)		kJ/m ²	ISO 179/1eA	dry		3,4
		kJ/m ²		moist		
Hardness Shore, scale D		ISO 868	dry	74	80	
Time yield limit σ_{1000}	23°C/50% RH	MPa	ISO 899	moist		
	100°C	MPa	ISO 899	dry		
Apparent modulus $E_{C1000,20}$	23°C/50% RH	MPa	ISO 899	moist		
THERMAL PROPERTIES						
Heat distortion temperature	Method A	°C	ISO 75	dry		
	Method B	°C	ISO 75	dry		
Melting point	Method A	°C	ISO 3146	-	165	175
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	-		
Thermal coefficient of linear expansion		1/K.10 ⁻⁶	DIN 53752	dry		
Thermal conductivity	Method A	W/(K.m)		dry		
Specific heat		J/(g.K)	IEC 1006	dry		
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	14	
		KV/mm	IEC 243	moist		
Volume resistivity		Ω .cm	IEC 93	dry	10 ⁹	10 ⁴
		Ω .cm	IEC 93	moist		
Surface resistivity		Ω	IEC 93	dry	10 ¹⁰	10 ⁴
		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	g/cm ³	ISO 1183	dry	1,35	1,41
Moisture absorption at 23°C, 50% RH	Saturation	%	ISO 1110	-		
Water absorption at 23 °C	Saturation	%	ISO 62	-		
Fire performance	Flameability Acc. VDE		VDE 0304	dry		
	Flameability of interior materials in passenger cars h>1mm	mm/min	FMVSS 302	moist		
	Flameability according UL Standard (thickness of specimen 1,6 mm)	-	UL 94	-		
Resistance to wear ²⁾		μ m/km	ISO 7148-2	dry		

● Dry= dried at 80°C and 1 mbar until weight is constant (moisture content less than 0.2%) ● Moist=after stc

● ¹⁾ Data of the resin only ● ²⁾ Made by a pin / rotating disc test according DIN-ISO 7148-2 under following c_T and liability. ● See page 49