

PP (POLYPROPYLENE)

MATERIAL DATA SHEET

PROPERTIES	Test methods	Units	VALUES
Colour	-	-	Natural/grey
Density	DIN 53479	g/cm ³	0.92
Water absorption still saturation	DIN 53495	%	0.1
Moisture pick up till saturation (23°C)	DIN 53715	%	0.01
Thermal Properties			
Melting temperature (DSC, 10°C/min)	DIN 53736	°C	165
Thermal conductivity at 23°C	DIN 52612	W/(K.m)	0.22
Coefficient of linear thermal expansion:			
- average value between 23 and 100°C	DIN 53752	10 ⁻⁵ x1/K	15
Temperature of deflection under load:			
- method A: 1.8 MPa	DIN 53461	°C	105
Max. allowable service temperature in air:			
- for short periods (3)	-	°C	140
- continuously : for min. 20,000 h	-	°C	100
Min. service temperature	-	°C	-40
Flammability			
- according to UL 94 (1.5 / 3 mm thickness)	-	-	HB
Mechanical Properties at 23°C			
Tension test			
- tensile stress at yield	DIN 53455	MPa	32
- percentage elongation at break	DIN 53455	%	80
- percentage elongation at yield	ISO 527	%	8
- tensile strength at break	ISO 527	MPa	38.5
- compressive stress (1% strain 23°C)	ISO 604	MPa	12
- deformation under load 100 MPa - 24hr - RT	-	%	0.48
Charpy impact strength (notched)	ISO 179	kJ/m ²	50
Shore hardness	DIN 53505	Scale D	70
Modulus of elasticity	DIN 53457	N/mm ²	1600
Electrical Properties at 23 °C			
Specific insulation resi stance	DIN 53482	Ohm.cm	10 ¹⁷
Dielectric constant	DIN 53483	10 ⁶ HZ	2.3
Dissipation factor	DIN 53483	10 ⁶ HZ	0.0002
Dielectric strength	DIN 53481	kV/mm	80
Surface resi stance	DIN 83482	Ohm	10 ¹³

Note: 1 g/cm³ = 1,000 kg/m³ ; 1 MPa = 1 N/mm² ; 1 kV/mm = 1 MV/m.NA: not applicable

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