

► **Main features**

Polypropylene has excellent chemical and electrical properties, high purity, low water absorption and it is easily weldable. The PP, however, has a poor resistance to light, atmospheric agents and is easily attacked by oxidizing agents such as nitric acid and halogens.

► **Applications**

Flanges
Pumps
Fittings
Tubs
Rings

► **Application sectors**

Chemical
Pumps and fluid management
Mechanic
Aerospace
Electric and Semiconductors
Architectural and Construction

► **FDA Compatibility** NO

► **Available colours**



PHYSICAL PROPERTIES

REGULATIONS

UM

PP

PHYSICAL PROPERTIES		DIN53479	g/cm ³	0.915
Density				
Water absorption (50% at 23° C)		**DIN53495	%	0.1
Maximum temp. for use in the air for short duration		-	°C	140
Maximum temperature of use in continuous air		-	°C	100
Minimum temperature of use in continuous air		-	°C	-10

MECHANICAL PROPERTIES

REGULATIONS

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PP

Yield stress/tensile strength (σ_s)	*DIN53455 (4)	N/mm ²	33
Elongation at break (ϵ_s)	ISO 527	%	8
Breaking load (σ_r)	DIN53455	N/mm ²	-
Elongation at break (ϵ_r)	ISO 527	%	8
Impact resistance	*DIN53453	kJ/m ²	NR
Impact resistance, notched test	ISO 179	kJ/m ²	>40
Rockwell hardness	DIN53465	Scala M	-
Compression test, load 1% deform. nominal	*DIN53454 (3)	N/mm ²	-
Elasticity module	*DIN53457 (5)	N/mm ²	1400

THERMIC PROPERTIES

REGULATIONS

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PP

Melting temperature	-	°C	160÷165
VICAT softening temperature	DIN53460	°C	90
Deformation temperature under bending load	DIN53461	°C	-
Coefficient of linear thermal expansion (α)	DIN53752	K ⁻¹ X10 ⁻⁴	1.6
Thermal conductivity at 23°	DIN52612	W/(Kxm)	0.22

ELECTRICAL PROPERTIES

REGULATIONS

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PP

Volume resistivity	**DIN53482	Ω/cm	10 ¹⁴
Surface resistivity	**DIN53482	Ω	10 ¹⁴
Dielectric constant at 10 ³ Hz (on thickness of 1 mm.)	**DIN53483	-	2.25
Dielectric dissipation factor ($\tan \delta$) a 10 ³ Hz	**DIN53483	-	<0.0003
Dielectric strength (on thickness of 1 mm.)	**DIN53481	kV/mm	>55
Electrical leakage resistivity	112/030TI	-	-

OTHER PROPERTIES

REGULATIONS

UM

PP

Possibility of gluing	-	-	Limited
Absence of physiological risks	FDA	-	No
Dry friction coefficient on steel	DIN53375	-	-
Flammability	UL94	-	HB
UV stability	-	-	-

* : MEASUREMENTS ON TEST TUBES IN ANHYDROUS STATE

(3): ON CYLINDERS Ø 12X30 MM
(5): TRACTION SPEED 1 MM / MIN

(4): TRACTION SPEED 5 MM/MIN
(6): TRACTION SPEED 20 MM/MIN