

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

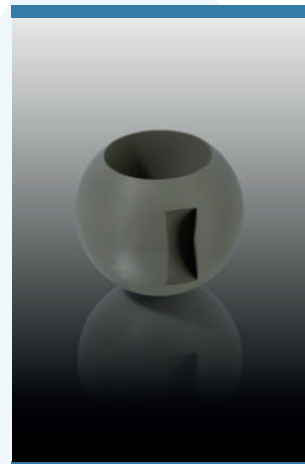
Flanges
Pumps
Fittings
Tubs
Rings

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			
Density	DIN53479	g/cm ³	0.915
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			
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			
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			
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 δ) 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			
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

(4): TRACTION SPEED 5 MM/MIN

** : MEASUREMENTS ON EQUILIBRIUM TUBES
WITH U.R. 50% AT A TEMPERATURE OF 23° C

(5): TRACTION SPEED 1 MM / MIN

(6): TRACTION SPEED 20 MM/MIN