

PA 66 GLASS | POLYAMIDES

MAIN FEATURES

After PA 4.6 PA 6.6 has the highest hardness, rigidity, friction resistance and thermal dimensional stability between polyamides 30% glass fiber reinforcement improve mechanical properties such as tensile strenght, toughness and hardness, increases the thermal dimensional stability, the resistance to sliding to chemical agents. Also limits the absorption of water.

Applications

Large ball spacer
cages for power stations,
guides
thermally stressed electrotechnical
parts, coatings

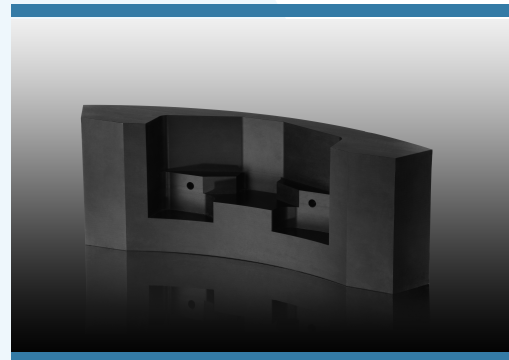
Application sectors

Mechanical
Medical & Pharmaceutical
Aerospace
Food
Automotive

FDA Compatibility

Yes

Available colours



PROPERTIES

REGULATIONS

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PA66 GLASS

PHYSICAL PROPERTIES

Density	DIN53479	g/cm ³	1.34
Water absorption (50% at 23° C)	**DIN53495	%	1,7
Maximum temp. for use in the air for short duration		°C	180
Maximum temperature of use in continuous air		°C	110
Minimum temperature of use in continuous air		°C	-20

MECHANICAL PROPERTIES

Yield stress/tensile strength (σ_s)	ISO 527	N/mm ²	90
Elongation at break (ϵ_s)	ISO 527	%	8
Breaking load (σ_r)	DIN53455	N/mm ²	-
Elongation at break (ϵ_r)	ISO 527	%	14
Impact resistance	*DIN53453	kJ/m ²	NR
Impact resistance, notched test	*DIN53453	kJ/m ²	-
Rockwell hardness	DIN53465	Scala M	M98
Compression test, load 1% deform. nominal	ISO 604	N/mm ²	25
Elasticity module	ISO 527	N/mm ²	4500

THERMIC PROPERTIES

Melting temperature	-	°C	255
VICAT softening temperature	DIN53460	°C	-
Deformation temperature under bending load	DIN53461	°C	150
Coefficient of linear thermal expansion (α)	DIN53752	KX10 ⁻⁶	50
Thermal conductivity at 23°	DIN52612	W/(Kxm)	0,30

ELECTRICAL PROPERTIES

Volume resistivity	**DIN53482	Ω /cm	1x10 ¹⁴
Surface resistivity	**DIN53482	Ω	1x10 ¹⁴
Dielectric constant at 10 ³ HZ (on thickness of 1 mm.)	**DIN53483	-	-
Dielectric dissipation factor (tan δ) a 10 ³ HZ	**DIN53483	-	-
Dielectric strength (on thickness of 1 mm.)	**DIN53481	kV/mm	30
Electrical leakage resistivity	112/030TI	-	CTI475

OTHER PROPERTIES

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

* : MEASUREMENTS ON TEST TUBES IN ANHYDROUS STATE

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

(3): ON CYLINDERS Ø 12X30 MM

(5): TRACTION SPEED 1 MM / MIN

(4): TRACTION SPEED 5 MM/MIN

(6): TRACTION SPEED 20 MM/MIN