PA 6 G | POLYAMIDES

MAIN FEATURES

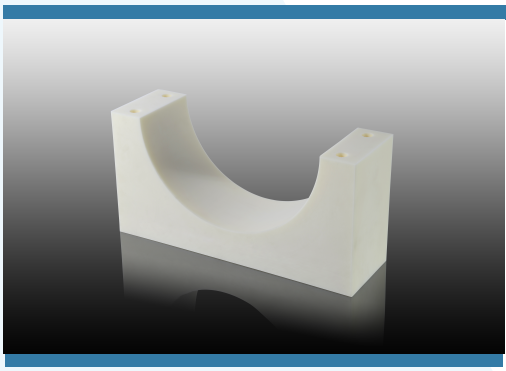
Cast nylon with finely crystalline structure, with properties similar to the PA 6.6 but better resistance to impact and hygroscopicity.

Applications

Skates
guides
pulleys
profiles
wheels
rollers
large components

Application sectors

Industrial automation
Mechanic
Machines for building industry and lifting
Agricultural
Waste collection
Power Plant, Offshore, Oil & Gas
Railway sector and Transportation



FDA Compatibility

Yes

Available colours

PROPERTIES	REGULATIONS	UM	PA6 G (b/w)
PHYSICAL PROPERTIES			
Density	DIN53479	g/cm³	1.15
Water absorption (50% at 23° C)	**DIN53495	%	2,2
Maximum temp. for use in the air for short duration		°C	170
Maximum temperature of use in continuous air		°C	100÷110
Minimum temperature of use in continuous air		°C	-40
MECHANICAL PROPERTIES			
Yield stress/tensile strength (σ_s)	*DIN53455 (4)	N/mm²	83
Elongation at break (ε_s)	ISO527	%	4
Breaking load (σ_r)	DIN53455	N/mm²	-
Elongation at break (ε_r)	ISO527	%	40
Impact resistance	*DIN53453	kJ/m²	NR
Impact resistance, notched test	*DIN53453	kJ/m²	4
Rockwell hardness	DIN53465	Scala M	M85
Compression test, load 1% deform. nominal	*DIN53454 (3)	N/mm²	86
Elasticity module	*DIN53457 (5)	N/mm²	3300
THERMIC PROPERTIES			
Melting temperature	-	°C	220
VICAT softening temperature	DIN53460	°C	-
Deformation temperature under bending load	DIN53461	°C	95
Coefficient of linear thermal expansion (α)	DIN53752	10^6/K	80
Thermal conductivity at 23°	DIN52612	W/(Kxm)	0,29
ELECTRICAL PROPERTIES			
Volume resistivity	**DIN53482	Ω/cm	10^{15}
Surface resistivity	**DIN53482	Ω	10^{13}
Dielectric constant at 10^3 HZ (on thickness of 1 mm.)	**DIN53483	-	8
Dielectric dissipation factor (tan δ) a 10^3 HZ	**DIN53483	-	>>0,2
Dielectric strength (on thickness of 1 mm.)	**DIN53481	kV/mm	>15
Electrical leakage resistivity	112/030TI	-	CTI600
OTHER PROPERTIES			
Possibility of gluing	-	-	No
Absence of physiological risks	FDA	-	No
Dry friction coefficient on steel	DIN53375	-	0,25÷0,3
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

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