

TECAGLIDE

Chemical Designation: Polyamide 6 (cast)

DIN Abbreviation: PA6 G

Colour, Filler: Green
Solid lubricant

TECAGLIDE is a tough hard semi-crystalline cast nylon with good sliding properties and wear resistance.

Main characteristics:

- Good sliding properties even in dry running conditions
- tough and strong
- wear resistant
- resistant to many oils, greases, diesel, petrol.
- high temperature resistance
- easily machined

Preferred fields: Mechanical engineering, transport and conveyor technology, gears, couplings and engine construction, textile, packaging and paper processing machinery, mining industry

Applications:

- Gear wheels
- Friction bearings
- Frictions strips
- Conveyor screws
- Rollers
- Bushes
- Spindle nuts
- Cam discs
- Pulleys
- Castors

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The following information corresponds with our current knowledge and indicates our products and possible applications. We cannot give a legally binding guarantee of certain properties or the suitability for a specific application. Existing commercial patents must be observed. A definitive quality guarantee is given in our general conditions of sales. Unless otherwise stated, these values represent averages taken from injection moulding samples. We reserve the right of technical alterations.

Properties	Unit	Test method DIN EN ISO / ASTM	
Mechanical			
Density	g/cm ³	527 / D 792	1.13
Tensile strength at yield	MPa	527 / D 638	84 / 64*
Tensile strength at break	MPa	527 / D 638	
Elongation at break	%	527 / D 638	11 / 17*
Modulus of elasticity in tension	MPa	527 / D 638	3600 / 3260*
Modulus of elasticity in flexure	MPa	178 / D 790	3010
Ball indentation hardness	MPa	2039 / 1	80 - 85
Impact strength	kJ/m ²	179 / D 256	7.3
Creep rupture strength after 1000 hrs with static load	MPa		
Time yield limit for 1% elongation after 1000 hrs.	MPa		
Coefficient of friction against hardened and ground steel p = 0,05 N/mm ² , v = 0,6 m/s	–		0.12
Wear conditions as above	µm/km		< 0.1
Thermal			
Crystalline melting point	°C	DIN 53 736	> 216
Glass transition temperature	°C	DIN 53 736	40 / 5*
Heat distortion temperature Method A Method B	°C °C	R 75 R 75	

Properties	Unit	Test method DIN EN 150 / ASTM	
Thermal			
Max. service temperature short term	°C		150
long term	°C		100
Coefficient of thermal conductivity	W/(m · K)		0.24
Specific heat	J/(g · K)		
Coefficient of thermal expansion	10 ⁻⁵ /K	DIN 53 483 / D 696	9
Electrical			
Dielectric constant at 10 ⁵ Hz		DIN 53 483	3.7
Dielectric loss factor at 10 ⁵ Hz		DIN 53 483	5*10 ⁻¹⁴
Specific volume resistance	Ω · cm	DIN 60093	158 10 ¹²
Surface resistance	Ω	DIN 60093	
Dielectric strength 1 mm	kV/mm	ASTM 149	
Tracking resistance		53 480	
Miscellaneous			
Moisture absorption: Equilibrium in standard atmosphere (23 °C / 50 % relative humidity)	%	62	2.5
Water absorption at saturation at 23 °C	%	62	6
Resistance to hot water, washing soda			
Flammability according to UL standard 94			
Resistance to weathering			

* after storage in a standard 23/50 atmosphere (DIN 50 014) to equilibrium

ENSINGER: Production and stock programme

- Semi-finished product, finished parts, injection moulded parts and profiles in more than 500 materials and modifications.
- Engineering plastics: PA extruded or cast, POM, PC, PET, PBT, PPE, PP, PE
- High temperature plastics: PI, TPI, PEEK, PPS, PES, PPSU, PEI, PSU, PVDF, PCTFE, PTFE
- Stock length: Standard 3 metres. Cast rod and sheet 2 mts. Tube up to 3.5 mts. PE, PP, PVC, and PTFE 2 mts
- Pressed/sintered semi-finished product: PI, PEEK, PPS, PTFE/PI and modifications, as well as PCTFE in special sizes ie, large discs, tubes and rings with diameters up to about 1400 mm
- Material modifications: eg. glass, carbon and aramid fibre, talc, MoS₂, graphite, PTFE, PE, silicone oil, internal lubrication