

TECAST TM

Chemical Designation :	Gusspolyamid 6
DIN-Abbreviation:	PA 6 G
Colours, fillers:	Molibdändisulfid, black

Main features

- | | |
|------------------------------------|--|
| wear resistant | shock absorbing |
| not electrically insulating | good sliding properties even in dry running conditions |
| tough | - |
| resistant to many oils and greases | increased surface hardness |
| UV and weather resistant | very easily machined |

Preferred Fields

- | | |
|-----------------------------------|--|
| mechanical engineering | automotive engineering |
| transport and conveyor technology | gears, couplings and engine construction |
| textile machinery | packaging and paper processing machinery |
| building machinery | agricultural machinery |
| printing machinery | |

Applications

Properties

Mechanical	dry / moist	standard
Tensile strength at yield	75 MPa	DIN EN ISO 527
Elongation at yield	%	
Tensile strength at break	MPa	

Elongation at break	40 / 60*	%	DIN EN ISO 527
Modulus of elasticity in tension	2800	MPa	DIN EN ISO 527
Modulus of elasticity after flexural test		MPa	
Hardness	145		DIN 53 456 (Kugeldruckhärte)
Impact strength 23° C (Charpy)		KJ/m ²	DIN EN ISO 179 (Charpy)
Creep rupture strength after 1000 h with static load		MPa	
Time yield limit for 1% elongation after 1000 h		MPa	

Co-efficient of friction
 $\rho = 0,05 \text{ N/mm}^2 v = 0,6 \text{ m/s}$
on steel, hardened and ground

Wear
 $\rho = 0,05 \text{ N/mm}^2 v = 0,6 \text{ m/s}$
on steel, hardened and ground

Thermal

dry / moist

standard

Crystalline melting point	210	°C	DIN 53 765
Glass transition temperature	40 / 5	°C	DIN 53 765
Heat distortion temperature HDT, Method A		°C	
Heat distortion temperature HDT, Method B		°C	
Max. service temperature			
short term	170	°C	
long term	100	°C	
Thermal conductivity (23° C)		W/(K·m)	
Specific heat (23° C)		J/g·K	
Coefficient of thermal expansion (23–55°C)	9,5	$10^{-5} 1/K$	DIN 53 752

Properties

Electrical

Dielectric constant (10^6 Hz)

Dielectric loss factor (10^6 Hz)

Specific volume resistance

$\Omega \cdot \text{cm}$

Surface resistance

Ω

Dielectric strength

kV/mm

Resistance to tracking

Miscellaneous

dry / moist

standard

Density

1,15

g/cm^3

DIN 53 479

Moisture absorption
(23°C/50RH)

2,5

%

DIN EN ISO 62

Water absorption to equilibrium

6

%

DIN 53 495

Flammability acc. to UL
standard 94

HB

(1) Testing of semi-finished products

The above information corresponds with our current knowledge and indicates our products and possible applications. We cannot give a legally binding guarantee of chemical resistance, of certain properties and the suitability of our products and their applications. Our products are not destined for use in medical and dental implants. Existing commercial patents must be observed. Unless otherwise stated, these values represent averages taken from injection moulding samples, dry as moulded. We reserve the right to make technical alterations.
