

TECAMID 46 GF 30

Chemical Designation :
DIN-Abbreviation:
Colours, fillers:

Polyamide 46
PA 46 GF 30
30% glassfibres

Main features

Preferred Fields

Applications

Properties

Mechanical

dry / moist

standard

Tensile strength at yield		MPa	
Elongation at yield		%	
Tensile strength at break	210 / 120	MPa	DIN EN ISO 527
Elongation at break	4 / 8	%	DIN EN ISO 527
Modulus of elasticity in tension	10000 / 4500	MPa	DIN EN ISO 527
Modulus of elasticity after flexural test		MPa	
Hardness	90 D		DIN 53 505 (Shore Härte D)
Impact strength 23° C (Charpy)	80	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
 $p = 0,05 \text{ N/mm}^2 v = 0,6 \text{ m/s}$
on steel, hardened and ground

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

Thermal	dry / moist		standard
Crystalline melting point	295	°C	DIN 53 765
Glass transition temperature	75	°C	DIN 53 765
Heat distortion temperature HDT, Method A		°C	
Heat distortion temperature HDT, Method B		°C	
Max. service temperature			
short term	220	°C	
long term	140	°C	
Thermal conductivity (23° C)	0,33	W/(K·m)	
Specific heat (23° C)	1,7	J/g.K	
Coefficient of thermal expansion (23–55°C)	2	$10^{-5} 1/K$	DIN 53 752

Properties

Electrical	dry / moist		standard
Dielectric constant (10^6 Hz)	4,1		DIN 53 483, IEC-250
Dielectric loss factor (10^6 Hz)	0,013		DIN 53 483, IEC-250
Specific volume resistance	10^{14}	$\Omega \cdot \text{cm}$	DIN IEC 60093
Surface resistance	10^{16}	Ω	DIN IEC 60093
Dielectric strength	20	kV/mm	DIN 53 481, IEC-243, VDE 0303 Teil 2
Resistance to tracking			

Miscellaneous	dry / moist		standard
Density	1,41	g/cm^3	DIN 53 479
Moisture absorption (23°C/50RH)	2,6	%	DIN EN ISO 62
Water absorption to equilibrium	10	%	DIN EN ISO 62
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.
