



Material Data Sheet, December 2007

---

## TECAMID 66 GF 30 sw

Chemical Designation :  
DIN-Abbreviation:  
Colours, fillers:

Polyamide 66  
PA 66 GF 30  
black, 30% glass fibre

---

### Main features

- | very rigid
  - | resistant to many oils, greases, diesels and petrol
  - | very abrasion resistant
  - | easily welded
  - | not electrically insulating
  - | easily machined
  - | very strong
  - | high dimensional stability
  - | good heat deformation resistance
  - | UV and weather resistant
  - | easily bonded
- 

### Preferred Fields

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

### Applications

sealings, fixing parts, spacers

---

### Properties

Mechanical	dry / moist	standard
Tensile strength at yield		MPa
Elongation at yield		%

Tensile strength at break	160 / 140	MPa	DIN EN ISO 527
Elongation at break	3 / 5	%	DIN EN ISO 527
Modulus of elasticity in tension	8000 / 7500	MPa	DIN EN ISO 527
Modulus of elasticity after flexural test		MPa	
Hardness	175		ISO 2039/1 (Kugeldruck-Härte)
Impact strength 23° C (Charpy)	70	KJ/m <sup>2</sup>	DIN EN ISO 179 (Charpy)
Creep rupture strength after 1000 h with static load		MPa	
Time yield limit for 1% elongation after 1000 h	40	MPa	
Co-efficient of friction p = 0,05 N/mm <sup>2</sup> v=0,6 m/s on steel, hardened and ground	0,45-0,50 / 0,5		
Wear p = 0,05 N/mm <sup>2</sup> v=0,6 m/s on steel, hardened and ground		µm/km	

Thermal	dry / moist		standard
Crystalline melting point		°C	
Glass transition temperature	72 / 5	°C	DIN 53 765
Heat distortion temperature HDT, Method A	250	°C	ISO-R 75 Verfahren A (DIN 53 461)
Heat distortion temperature HDT, Method B	250	°C	ISO-R 75 Verfahren B (DIN 53 461)
Max. service temperature			
short term	170	°C	
long term	110	°C	
Thermal conductivity (23° C)	0,27	W/(K·m)	
Specific heat (23° C)	1,5	J/g.K	
Coefficient of thermal expansion (23-55°C)	2-3	10 <sup>-5</sup> 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

$\Omega$

Dielectric strength

kV/mm

Resistance to tracking

---

### Miscellaneous

#### dry / moist

#### standard

Density

1,35

$\text{g/cm}^3$

DIN 53 479

Moisture absorption  
(23°C/50RH)

1,5

%

DIN EN ISO 62

Water absorption to equilibrium

5,5

%

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.

---