

## TECAMID 66/X GF 50 sw

Chemical Designation :	Polyamide 66, partially aromatic
DIN-Abbreviation:	PA 66 + PA 6I/ 6T
Colours, fillers:	black, 50% glassfibre

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### Main features

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|---|--------------------------|
| high thermal and mechanical capacity                | very rigid               |
| good heat deformation resistance                    | very creep resistant     |
| resistant to many oils, greases, diesels and petrol | UV and weather resistant |
| very high dimensional stability                     |                          |
|   | easily machined          |

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### Preferred Fields

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|--|------------------------|
| mechanical engineering                   | automotive engineering |
| transport and conveyor technology        | electronics            |
| printing machinery                       | textile machinery      |
| packaging and paper processing machinery |                        |

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### Applications

Structural parts, pistons, clamping systems

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### Properties

<b>Mechanical</b>	<b>dry / moist</b>	<b>standard</b>
Tensile strength at yield		MPa
Elongation at yield		%
Tensile strength at break	210	MPa DIN EN ISO 527

Elongation at break	3	%	DIN EN ISO 527
Modulus of elasticity in tension	17000	MPa	DIN EN ISO 527
Modulus of elasticity after flexural test		MPa	
Hardness			
Impact strength 23° C (Charpy)	85	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		MPa	
Co-efficient of friction p = 0,05 N/mm <sup>2</sup> v=0,6 m/s on steel, hardened and ground			
Wear p = 0,05 N/mm <sup>2</sup> v=0,6 m/s on steel, hardened and ground		µm/km	

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Thermal	dry / moist		standard
Crystalline melting point		°C	
Glass transition temperature		°C	
Heat distortion temperature HDT, Method A		°C	
Heat distortion temperature HDT, Method B		°C	
Max. service temperature			
short term	200	°C	
long term	130	°C	
Thermal conductivity (23° C)		W/(K·m)	
Specific heat (23° C)		J/g·K	
Coefficient of thermal expansion (23–55°C)	1,5	10 <sup>-5</sup> /K	DIN 53 752

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## Properties

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### Electrical

Dielectric constant ( $10^6$  Hz)

Dielectric loss factor ( $10^6$  Hz)

Specific volume resistance       $10^{12}$        $\Omega \cdot \text{cm}$       DIN IEC 60093

Surface resistance                       $10^{13}$        $\Omega$       DIN IEC 60093

Dielectric strength                      kV/mm

Resistance to tracking

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### Miscellaneous

#### dry / moist

#### standard

Density                                      1,56              g/cm<sup>3</sup>              DIN 53 479

Moisture absorption                      1,3              %              DIN EN ISO 62  
(23°C/50RH)

Water absorption to equilibrium              %

Flammability acc. to UL  
standard 94

(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.

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