ENSINGER
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Material Data Sheet, December 2007

TECAMID 66 CF 20 IM−HI

Chemical Designation :	Polyamide 66
DIN−Abbreviation:	PA 66 CF 20
Colours, fillers:	black, 20% carbon fibres

Main features

Preferred Fields

Applications

Properties

Mechanical	dry / moist		standard
Tensile strength at yield		MPa	
Elongation at yield		%	
Tensile strength at break	190	MPa	DIN EN ISO 527
Elongation at break	3	%	DIN EN ISO 527
Modulus of elasticity in tension	11500	MPa	DIN EN ISO 527
Modulus of elasticity after flexural test		MPa	
Hardness	75		DIN 53 456 (Kugeldruckhärte, 358N)
Impact strength 23° C (Charpy)	55	KJ/m²	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/mm²v=0,6 m/s on steel, hardened and ground			
Wear p = 0,05 N/mm²v=0,6 m/s on steel, hardened and ground		µm/km	
Thermal	**dry / moist**		**standard**
Crystalline melting point	260	°C	DIN 53 765
Glass transition temperature	−75/55	°C	DIN 53 765
Heat distortion temperature HDT, Method A		°C	
Heat distortion temperature HDT, Method B		°C	
Max. service temperature			
short term	180	°C	
long term	115	°C	
Thermal conductivity (23° C)		W/(K·m)	
Specific heat (23° C)		J/g.K	
Coefficient of thermal expansion (23−55°C)	0,79	10^{-5}1/K	DIN 53 752

Properties

Electrical	dry / moist		standard
Dielectric constant (10^6 Hz)			
Dielectric loss factor (10^6 Hz)			
Specific volume resistance	2*10^3	Ω*cm	DIN IEC 60093
Surface resistance		Ω	DIN IEC 60093
Dielectric strength		kV/mm	
Resistance to tracking			

Miscellaneous	dry / moist		standard
Density	1,24	g/cm^3	DIN 53 479
Moisture absorption (23°C/50RH)	2,2	%	DIN EN ISO 62
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.