TECAMID 66 GF35 black - Stock Shapes (rods, plates, tubes)

Chemical Designation
PA 66 (Polyamide 66)

Colour
black opaque

Density
1.4 g/cm^3

Fillers
glass fibres

Data generated directly after machining (standard climate Germany).

Main features
- very high stiffness
- resistant to many oils, greases and fuels
- good wear properties
- very high strength
- high dimensional stability
- good heat deflection temperature
- good weldable and bondable

Target Industries
- aircraft and aerospace technology
- mechanical engineering

Mechanical properties	condition	value	unit	test method		comment
Tensile strength	50mm/min	98	MPa	DIN EN ISO 527-2		(1) For tensile test: specimen type 1b
Modulus of elasticity (tensile test)	1mm/min	5700	MPa	DIN EN ISO 527-2	1)	
Elongation at yield (tensile test)	50mm/min	7	%	DIN EN ISO 527-2		
Elongation at break (tensile test)	50mm/min	11	%	DIN EN ISO 527-2		
Flexural strength		149	MPa	DIN EN ISO 178		
Modulus of elasticity (flexural test)		5100	MPa	DIN EN ISO 178		
Impact strength (Charpy)		80	kJ/m^2	DIN EN ISO 179-1eU		
Notched impact strength (Charpy)		5	kJ/m^2	DIN EN ISO 179-1eA		

Thermal properties	condition	value	unit	test method		comment
Glass transition temperature		48	°C	DIN EN ISO 11357	1)	(1) Found in public sources. (2) Found in public sources. Individual testing regarding application conditions is mandatory.
Melting temperature		254	°C	DIN EN ISO 11357		
Service temperature	short term	170	°C		2)	
Service temperature	long term	110	°C			

Electrical properties	condition	value	unit	test method		comment
surface resistivity	Silver electrode, 23°C, 12% r.h.	10^{14}		DIN IEC 60093		(1) Due to moisture uptake of the material the electrical insulation properties cannot be 100% guaranteed, despite single measurements suggesting otherwise.
volume resistivity	Silver electrode, 23°C, 12% r.h.	10^{14}		DIN IEC 60093	1)	

Other properties	condition	value	unit	test method		comment
Resistance to hot water/ bases		(+)		-	1)	(1) (+) limited resistance (2) Corresponding means no listing at UL (yellow card). The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory.
Resistance to weathering		(+)				
Flammability (UL94)	corresponding to	HB		DIN IEC 60695-11-10;	2)	

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