

## TECAMID® 66 GF30 black - Stock Shapes (rods, plates, tubes)

### Chemical Designation

PA 66 (Polyamide 66)

### Colour

black

### Density

1.36 g/cm<sup>3</sup>

### Fillers

30% glass fibres

### Main features

- very good mechanical strength
- high heat deflection temperature
- high stiffness
- high strength
- excellent wear properties
- high fatigue strength
- resistant to many solvents
- high creep resistance

### Target Industries

- power engineering
- gear manufacturing
- automotive industry
- conveyor technology
- mechanical engineering
- construction industry
- others

Mechanical properties	condition	value	unit	test method	comment	
Modulus of elasticity (tensile test)	@ 73 °F	600,000	psi	ASTM D 638		
Tensile strength at yield	@ 73 °F	12,200	psi	ASTM D 638		
Elongation at break (tensile test)	@ 73 °F	10	%	ASTM D 638		
Flexural strength	@ 73 °F	19,575	psi	ASTM D 790		
Modulus of elasticity (flexural test)	@ 73 °F	700,000	psi	ASTM D 790		
Compression strength	@ 73 °F, 1% strain	4,300	psi	ASTM D 695		
Compression strength	@ 73 °F, 10% strain	17,000	psi	ASTM D 695		
Compression modulus	@ 73 °F	450,000	psi	ASTM D 695		
Impact strength (Izod)		0.75	ft-lbs/in	ASTM D 256		
Rockwell hardness	M Scale	88		ASTM D 785		
Rockwell hardness	R scale	117		ASTM D 785		
Thermal properties	condition	value	unit	test method	comment	
Melting temperature		499	°F	-	1)	(1) publicly sourced data
Service temperature	Intermittent	338	°F	-	2)	(2) publicly sourced data
Service temperature	Long Term	230	°F	-	3)	(3) publicly sourced data
Thermal expansion (CLTE)		2.7*10 <sup>-5</sup>	in/in/°F	ASTM D 696	4)	(4) publicly sourced data
Specific heat		0.3	BTU/lb-F°	-	5)	(5) Data obtained from public source
Thermal conductivity		2.71	BTU-in/hr-ft <sup>2</sup> -°F	-	6)	(6) Data obtained from public source
Electrical properties	condition	value	unit	test method	comment	
surface resistivity		1.0*10 <sup>14</sup>	Ω/square	ASTM D 257	1)	(1) Data obtained from public source
volume resistance		1.0*10 <sup>14</sup>	Ω*cm	-	2)	(2) Data from public source
Other properties	condition	value	unit	test method	comment	
Moisture absorption	@ 24 hrs, 73 °F	0.25	%	ASTM D 570		
Moisture absorption	@ saturation, 73 °F	0.30	%	ASTM D 570		

→ Resin specification:

ASTM D6779-11 PA0110G30A00000 and ASTM D4066-01a (Reapproved 2008) PA0110G30A00000

Shapes specification: ASTM D5989-11 S-PA0101G305444420

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