## Engineering 185°F - 300°F | Nylon

## TECAMID 66 GF30 - 30% Glass reinforced

TECAMID® 6/6 GF30 is a 30% glass-fiber reinforced nylon 6/6 material whose important properties include high tensile and flexural strength, stiffness, excellent heat deflection temperature, and superior abrasion and wear resistance. While all TECAMID® materials have high mechanical strength and superior resistance to wear and organic chemicals, TECAMID® 6/6 GF30 has more than double the strength and stiffness of unreinforced nylons and a heat deflection temperature which approaches its melting point.



- Superior organic chemical resistance
  TECAMID® nylons are resistant to most organic solvents.
- High heat deflection temperature
  At 66 psi, TECAMID® 6/6 GF30 has a HDT of 490®F. Even at 264 psi, the HDT is in excess of 480®F.
- Excellent wear resistance
   TECAMID® 6/6 GF30 has a wear rate approaching that of internally lubricated bearing materials. Additionally, the reinforcing glass fibers give this extruded nylon excellent abrasion and cut resistance.
- Very good fatigue endurance
  TECAMID® 6/6 GF30 has been successfully used in gears at high stress levels for many years.
- · Superior creep resistance

TECAMID® 6/6 GF30 has an excellent balance of properties which make it an ideal material for metal replacement in applications such as automotive parts, industrial valves, railway tie insulators, and other industry uses whose design requirements include high strength, toughness, and weight reduction.

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	Properties	Condition	Value		Test Method
Mechanical	Modulus of elasticity (tensile test)	@ 73°F	797,000	psi	ASTM D 638
	Tensile strength at yield	@ 73°F	13,000	psi	ASTM D 638
	Elongation at break	@ 73°F	14	%	ASTM D 638
	Flexural Strength	@ 73°F	19,575	psi	ASTM D 790
	Modulus of elasticity (flexural test)	@ 73°F	681,000	psi	ASTM D 790
	Compression strength	@ 1% strain	3625	psi	ASTM D 695
	Compression strength	@ 10% strain	16300	psi	ASTM D 695
	Compression modulus		510,000	psi	ASTM D 695
	Impact strength (Izod)		1.8	ft-lbs/in	ASTM D 256
	Rockwell hardness	M Scale	88		ASTM D 785
Thermal	Melting temperature		499	°F	-
	Service temperature	Intermittent	338	°F	-
	Service temperature	Long term	230	°F	-
	Thermal expansion (CLTE)		2.7*10 <sup>-5</sup>	in/in/°F	ASTM D 696
Other	Moisture absoption	@ 24 hrs, 73°F	0.25	%	ASTM D 570
	Moisture absorption	@ saturation, 73°F	0.30	%	ASTM D 570

This information is only to assist and advise you on current technical knowledge and is given without obligation or liability. All trade and patent rights should be observed. All rights reserved. Data obtained from extruded shapes material.

TECAMID™ - Ensinger Industries, Inc.

