

## TECAMID® GF30

### 30% Glass Fiber Reinforced Nylon 6/6

TECAMID® 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® 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® GF30 has a HDT of 490°F. Even at 264 psi, the HDT is in excess of 400°F.
- **Excellent wear resistance**  
TECAMID® 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.
- **High strength and stiffness**  
TECAMID® GF30 has a tensile and flexural strength more than double that of unreinforced nylon and a flexural modulus three times higher. These values are equaled or exceeded only by reinforced specialty materials costing many times more.
- **Very good fatigue endurance**  
TECAMID® GF30 has been successfully used in gears at high stress levels for many years.
- **Superior creep resistance**

*TECAMID® 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.*

# TYPICAL PROPERTY VALUES

	PROPERTIES	ASTM Test Method	Units	TECAMID® GF30
<b>PHYSICAL</b>	Specific Gravity	D792	g/cc	1.34
	Moisture Absorption, @24 hours	D570	%	0.10
	@Saturation		%	0.30
<b>MECHANICAL</b>	Tensile Strength @ Yield	D638	psi	13,000
	Elongation @ Break	D638	%	14
	Tensile Modulus	D638	psi	797,000
	Flexural Strength	D790	psi	19,575
	Flexural Modulus	D790	psi	681,000
	Compressive Strength @ 1% strain	D695	psi	3625
	@ 2% strain	D695	psi	6670
	Compressive Modulus	D695	psi	594,000
	Izod Impact	D256	ft-lbs/in	1.8
	Coefficient of Friction Dynamic	-	-	-
Rockwell Hardness	D785	M-Scale	88	
<b>THERMAL</b>	Melting Point	D736	°F	489
	Maximum Servicing Temperature, Intermittent	-	°F	338
	Long Term	-	°F	230
	CTLE	D696	in/in/°F	2.7e-5
<b>ELECTRICAL</b>				

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## MATERIAL AVAILABILITY

**Rods:** Diameters: 3/16" to 4 3/4", 10' length  
Length: 5" to 6" diameter, 5' length

**Plates:** 1/4" to 3" thickness inclusive are 2' x 4'  
3 1/4" to 4" thickness inclusive are 1' x 2'

## Primary Specification (Resin) (Typical)

ASTM-D-4066 PA011G30A00000

## Shapes Specification (Typical)

ASTM-D-5989 S-PA0101G301444440

**Profiles, tubes, and special sizes are custom-produced on request.**



DISTRIBUTED BY

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