

PA6 GF33 is a 33% glass fiber reinforced nylon 6 compound known for its exceptional stiffness, mechanical strength, and dimensional stability, heat stabilized. It is commonly used as a metal replacement material in demanding industries such as automotive, electrical, industrial machinery, and power tools.

Form	Granules		
Color available	All color		
Processing method	Injecton		
Features	Lubricated	Heat stabilized	
Additive			
Available	Resistant to hydrolysis	Resistant to metals	Colored
According or exceeded	GMP.PA6.009		
According or exceeded			
According or exceeded			

Physical properties	ASTM	ISO	Unit	Value
Description	-	1043	-	PA6GF33
Density	D1505	1183	g/cm ³	1.38
Ash content	D2584	3451	%	33
Linear molds shrinkage	D955	294-4	%	0.2 ÷ 0.4
Relative Viscosity (RV) 1% [m/v] in 96% [m/m] sulfuric acid	-	307	-	2.7
Viscosity Number (VN) 0,5% [m/v] in 96% [m/m] sulfuric acid	-	307	ml/g	149
Melt Volume-Flow Rate (MVR) (275°C/5.0 kg)	D1238	1133	gr/10'	-

Mechanical properties	Dry/Wet			
Tensile strength at yield	D638	527	MPa	-
Tensile strength at break	D638	527	MPa	180/120
Tensile elongation at break	D638	527	%	2/3
Tensile modulus	D638	527	MPa	10600/6900
Flexural stress	D790	178	MPa	270/160
Flexural modulus	D790	178	MPa	8300/5900
IZOD impact strength, notched 23°C	-	ISO 180 1eA	kJ/m ²	13/19
IZOD impact strength, notched -30°C	-	ISO 180 1eA	kJ/m ³	-
Charpy impact strength, unnotched 23°C	-	ISO 179 1eA	kJ/m ²	-

Thermal properties				
Vicat Method B50 (50N/50°C)	D1525	306	°C	-
H.D.T. method B (0.45MPa)	D647	75	°C	215
H.D.T. method A (1.82 MPa)	D648	75	°C	200
Aging test (150°C)	-	-	hrs	> 200

Flammability properties				
Flame rating 1.6 mm	UL 94	UL 94	Class	HB
Flame rating 3.2 mm	UL 94	UL 94	Class	HB
Automotive materials (Thickness >=1 mm)	FMVSS 302	3795	mm/min	< 100
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Processing condifions				
Rear temperature	-	-	°C	250 ÷ 255
Middle temperature	-	-	°C	250 ÷ 255
Front temperature	-	-	°C	250 ÷ 255
Nozzle temperature	-	-	°C	250 ÷ 255
Molds temperature	-	-	°C	80 ÷ 90
Injection Pressure	-	-	MPa	3.50 ÷ 12.5
Injection rate	-	-	-	Fast
Back Pressure	-	-	MPa	0.2 ÷ 3
Ejection emperature	-	-	°C	155
Drying (Optional)	-	-	hrs / °C	2 ÷ 4 h - 80°C