

# Clariant Nylon 6/6 PA-111G43

Polyamide 66  
Clariant Corporation

Message:

Clariant Nylon 6/6 PA-111G43 is a polyamide 66 (nylon 66) material, which contains a 43% glass fiber reinforced material. This product is available in North America and is processed by injection molding.

The main features of Clariant Nylon 6/6 PA-111G43 are:

- flame retardant/rated flame
- high strength
- Good stiffness

Typical application areas include:

- Wire and cable
- engineering/industrial accessories
- industrial applications
- Automotive Industry

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 43% filler by weight		
Features	Rigid, good		
	High strength		
Uses	Gear		
	Industrial application		
	Application in Automobile Field		
Agency Ratings	UL 94		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.47	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.20	%	ASTM D955
Water Absorption (24 hr)	0.40	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
Class m	97		ASTM D785
Class r	121		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	207	MPa	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	11000	MPa	ASTM D790
Flexural Strength	283	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	130	J/m	ASTM D256

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	266	°C	ASTM D648
1.8 MPa, not annealed	257	°C	ASTM D648
Melting Temperature	255	°C	
CLTE - Flow	2.3E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
Dielectric Strength	22	kV/mm	ASTM D149
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm)	HB		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	79.4	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.20	%	
Rear Temperature	266 - 293	°C	
Middle Temperature	266 - 293	°C	
Front Temperature	266 - 293	°C	
Processing (Melt) Temp	266 - 288	°C	
Melt Temperature (Aim)	274	°C	
Mold Temperature	65.6 - 93.3	°C	
Injection Rate	Fast		
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	20 - 100	rpm	
Cushion	3.18 - 6.35	mm	
Injection instructions			

Injection Pressure: Use minimum pressure to achieve 95% fill during the boost inj. pressure phase.Hold Pressure: 30% to 75% of injection pressure.Mold Temp. Target: 180°FScrew Speed Target: 75 RPM

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#### Recommended distributors for this material

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