

# Clariant Nylon 6/6 PA-111G20

Polyamide 66  
Clariant Corporation

Message:

Clariant Nylon 6/6 PA-111G20 is a polyamide 66 (nylon 66) material, which contains a 20% 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-111G20 are:

flame retardant/rated flame

high strength

Hard

The typical application field of Clariant Nylon 6/6 PA-111G20 is: wire and cable

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 20% filler by weight		
Features	Rigidity, high		
	High strength		
Agency Ratings	UL 94		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.28	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.50	%	ASTM D955
Water Absorption (24 hr)	0.70	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
Class m	93		ASTM D785
Class r	121		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	141	MPa	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	6210	MPa	ASTM D790
Flexural Strength	207	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	64	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	249	°C	ASTM D648
1.8 MPa, not annealed	238	°C	ASTM D648
Melting Temperature	255	°C	
CLTE - Flow	4.1E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method

Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
Dielectric Strength	20	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°F. Screw Speed Target: 75 RPM

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#### Recommended distributors for this material

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