# Clariant Nylon 6 PA-211G13

### Polyamide 6

#### **Clariant Corporation**

#### Message:

Clariant Nylon 6 PA-211G13 is a polyamide 6 (nylon 6) material, which contains a 13% glass fiber reinforced material. This product is available in North America and is processed by injection molding.

The main features of the Clariant Nylon 6 PA-211G13 are:

flame retardant/rated flame

Hard

Typical application areas include:

Electrical/electronic applications

Wire and cable

engineering/industrial accessories

Automotive Industry

General Information				
Filler / Reinforcement	Glass fiber reinforced material, 13% filler by weight			
Features	Rigidity, high			
Uses	Gear			
	Connector			
	Application in Automobile Field			
Agency Ratings	UL 94			
Forms	Particle			
Processing Method	Injection molding			
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	1.22	g/cm³	ASTM D792	
Molding Shrinkage - Flow (3.18 mm)	0.55	%	ASTM D955	
Water Absorption (24 hr)	1.2	%	ASTM D570	
Hardness	Nominal Value	Unit	Test Method	
Rockwell Hardness			ASTM D785	
Class m	87		ASTM D785	
Class r	121		ASTM D785	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Strength	96.5	MPa	ASTM D638	
Tensile Elongation (Break)	3.0	%	ASTM D638	
Flexural Modulus	4830	MPa	ASTM D790	
Flexural Strength	128	MPa	ASTM D790	
Impact	Nominal Value	Unit	Test Method	
Notched Izod Impact (3.18 mm)	48	J/m	ASTM D256	
Thermal	Nominal Value	Unit	Test Method	
Deflection Temperature Under Load			ASTM D648	
0.45 MPa, not annealed	210	°C	ASTM D648	

1.8 MPa, not annealed	199	°C	ASTM D648
Melting Temperature	216	°C	
CLTE - Flow	4.7E-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)	НВ		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	249 - 274	°C	
Middle Temperature	249 - 274	°C	
Front Temperature	249 - 274	°C	
Processing (Melt) Temp	254 - 271	°C	
Melt Temperature (Aim)	266	°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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