

Clariant Nylon 6 PA-223G33

Polyamide 6
Clariant Corporation

Message:

Clariant Nylon 6 PA-223G33 is a polyamide 6 (nylon 6) material, which contains a 33% 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-223G33 are:

flame retardant/rated flame

Flame Retardant

Impact modification

high strength

Good processability

Typical application areas include:

Wire and cable

House

military applications

Sporting goods

medical/health care

General Information	
Filler / Reinforcement	Glass fiber reinforced material, 33% filler by weight
Additive	Impact modifier
	heat stabilizer
Features	Good dimensional stability
	Impact modification
	Rigidity, high
	High strength
	Workability, good
	Good corrosion resistance
	Good coloring
	Good chemical resistance
	Thermal Stability
	Good toughness
	Flame retardancy
Uses	Metal substitution
	Military application
	Sporting goods
	Shell
	Medical/nursing supplies
Agency Ratings	UL 94
Forms	Particle

Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.35	g/cm ³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.40	%	ASTM D955
Water Absorption (24 hr)	0.90	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
Class m	88		ASTM D785
Class r	123		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	152	MPa	ASTM D638
Tensile Elongation (Break)	5.0	%	ASTM D638
Flexural Modulus	8270	MPa	ASTM D790
Flexural Strength	238	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	210	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	213	°C	ASTM D648
1.8 MPa, not annealed	204	°C	ASTM D648
CLTE - Flow	3.4E-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	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	249 - 274	°C	
Middle Temperature	249 - 274	°C	
Front Temperature	249 - 274	°C	
Processing (Melt) Temp	254 - 271	°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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