Clariant Nylon 6 PA-221G33

Polyamide 6

Clariant Corporation

Message:

Clariant Nylon 6 PA-221G33 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-221G33 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
Features	Good dimensional stability Impact modification Rigidity, high High strength Workability, good Good corrosion resistance Good coloring Good chemical resistance 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/cm³	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)	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

Recommended distributors for this material

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