Clariant Nylon 6 PA-221

Polyamide 6

Clariant Corporation

Message:

Clariant Nylon 6 PA-221 is a polyamide 6 (nylon 6) material. This product is available in North America and is processed by injection molding.
The main features of the Clariant Nylon 6 PA-221 are:
flame retardant/rated flame
Impact modification
Copolymer
Good toughness
Impact resistance
Typical application areas include:
safety equipment
Electrical/electronic applications
Wire and cable
House
engineering/industrial accessories

General Information			
Additive	Impact modifier		
Features	Impact modification Copolymer Impact resistance, good Good toughness		
Uses	Safety helmet Conveyor accessories Power/other tools Guardrail Fasteners Connector Shell Medical/nursing supplies		
Agency Ratings	UL 94		
Forms	Particle		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.08	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	1.2	%	ASTM D955
Water Absorption (24 hr)	1.5	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness			ASTM D785
Class m	75		ASTM D785

Class r	105		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	65.5	MPa	ASTM D638
Tensile Elongation (Yield)	80	%	ASTM D638
Flexural Modulus	2210	MPa	ASTM D790
Flexural Strength	82.7	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	160	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	177	°C	ASTM D648
1.8 MPa, not annealed	60.0	°C	ASTM D648
Melting Temperature	216	°C	
CLTE - Flow	9.9E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+13	ohms·cm	ASTM D257
Dielectric Strength	17	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	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

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China