# Clariant Nylon 6/6 PA-113TF20

### Polyamide 66

#### **Clariant Corporation**

#### Message:

Clariant Nylon 6/6 PA-113TF20 is a polyamide 66 (nylon 66) material. This product is available in North America and is processed by injection molding. The main features of Clariant Nylon 6/6 PA-113TF20 are: Flame Retardant high strength Good processability Hard Corrosion resistance Typical application areas include: engineering/industrial accessories Tools military applications Sporting goods medical/health care

General Information			
Additive	PTFE lubricant (20%)		
Features	Low friction coefficient		
	Rigidity, high		
	High strength		
	Workability, good		
	Good corrosion resistance		
	Good coloring		
	Good chemical resistance		
	Good wear resistance		
	Good toughness		
	Lubrication		
	Low or no water absorption		
	Flame retardancy		
Uses	Gear		
	Power/other tools		
	Metal substitution		
	Military application		
	Sporting goods		
	Cam		
	Medical/nursing supplies		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method

Specific Gravity	1.26	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	1.5	%	ASTM D955
Water Absorption (24 hr)	1.0	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	114		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	62.1	MPa	ASTM D638
Tensile Elongation (Yield)	40	%	ASTM D638
Flexural Modulus	2550	MPa	ASTM D790
Flexural Strength	89.6	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	37	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	238	°C	ASTM D648
1.8 MPa, not annealed	104	°C	ASTM D648
CLTE - Flow	8.3E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+14	ohms∙cm	ASTM D257
Dielectric Strength	19	kV/mm	ASTM D149
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°FScrew Speed Target: 75 RPM

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