

# Clariant Nylon 6 PA-211CF30 TF15

Polyamide 6  
Clariant Corporation

Message:

Clariant Nylon 6 PA-211CF30 TF15 is a polyamide 6 (nylon 6) material, which contains a 30% carbon fiber reinforced material. This product is available in North America and is processed by injection molding.

The main features of Clariant Nylon 6 PA-211CF30 TF15 are:

- flame retardant/rated flame
- Flame Retardant
- Conductivity
- high strength
- Good processability

Typical application areas include:

- Wire and cable
- military applications
- business/office supplies
- Sporting goods
- medical/health care

General Information	
Filler / Reinforcement	Carbon fiber reinforced material, 30% filler by weight
Additive	PTFE lubricant (15%)
Features	Good dimensional stability
	Conductivity
	Low friction coefficient
	Rigidity, high
	Rigid, good
	High strength
	Workability, good
	Good corrosion resistance
	Good coloring
	Good chemical resistance
	Good wear resistance
	Good toughness
	Lubrication
	Flame retardancy
Uses	Metal substitution
	Military application
	Business equipment
	Sporting goods
	Medical/nursing supplies
Agency Ratings	UL 94

Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.37	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.25	%	ASTM D955
Water Absorption (24 hr)	0.70	%	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	210	MPa	ASTM D638
Tensile Elongation (Break)	2.0	%	ASTM D638
Flexural Modulus	14500	MPa	ASTM D790
Flexural Strength	290	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	53	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	216	°C	ASTM D648
1.8 MPa, not annealed	213	°C	ASTM D648
CLTE - Flow	1.8E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+3	ohms · cm	ASTM D257
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

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#### Recommended distributors for this material

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