

# NYCOA Polyamide 2090 HS

Polyamide + TPE

Nycoa (Nylon Corporation of America)

## Message:

NYCOA 2090 HS is a medium viscosity Nylon copolymer TPE particularly suitable for extrusion applications. This material offers an outstanding balance of toughness, flexibility, and strength, with improved flame retardancy. The high thermal and chemical resistance, inherent to Nylon 6, is retained. NYCOA 2090 HS provides high melt viscosity and melt strength and hence outstanding processability for tubing, profile, sheet, and monofilament. This product is available with custom additive packages: UV stabilizer, and custom colors.

General Information			
Features	Copolymer		
	Workability, good		
	Good strength		
	Good flexibility		
	Good chemical resistance		
	Good toughness		
	Medium viscosity		
	Flame retardancy		
Uses	monofilament		
	Pipe fittings		
	Sheet		
	Profile		
Appearance	Available colors		
Forms	Particle		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.16	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage			ASTM D955
Flow	1.2	%	ASTM D955
Transverse flow	1.4	%	ASTM D955
Water Absorption (24 hr)	1.7	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>1</sup>	49.6	MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	400	%	ASTM D638
Flexural Modulus <sup>3</sup>	586	MPa	ASTM D790
Flexural Strength <sup>4</sup>	23.4	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (6.35 mm)	85	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method

Melting Temperature	204	°C	DSC
Additional Information			
The value listed as Melting Point DSC, was tested in accordance with ASTM D789.			
Injection	Nominal Value	Unit	
Drying Temperature	71.1	°C	
Drying Time	4.0 - 6.0	hr	
Rear Temperature	216 - 227	°C	
Middle Temperature	221 - 238	°C	
Front Temperature	232 - 249	°C	
Nozzle Temperature	243 - 260	°C	
Processing (Melt) Temp	243 - 254	°C	
Mold Temperature	21.1 - 48.9	°C	
Injection Rate	Moderate-Fast		
Back Pressure	0.138 - 0.345	MPa	
Cushion	1.59 - 6.35	mm	
Screw L/D Ratio	18.0:1.0		
Screw Compression Ratio	3.0:1.0		
NOTE			
1.	50 mm/min		
2.	50 mm/min		
3.	50 mm/min		
4.	50 mm/min		

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#### Recommended distributors for this material

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