# NYCOA Polyamide 471 R

### Polyamide 6

## Nycoa (Nylon Corporation of America)

#### Message:

NYCOA 471 R is a medium viscosity Nylon 6 resin particularly suitable for extrusion processing. It possesses an excellent combination of strength, and toughness; as well as excellent heat, chemical, and abrasion resistance inherent to Nylon 6.

Its high melt viscosity and strength provide ease of processing from either a flat or a circular die. Similarly, tubes, pipes, and tapes have been processed with excellent results.

Injection molding of high strength parts can be accomplished with molding cycles similar to those obtained with general purpose grade resins, even though higher cylinder temperatures may sometimes be required.

General Information				
Features	High strength			
	Workability, good			
	Good melt strength			
	Good wear resistance			
	Good chemical resistance			
	Heat resistance, high			
	Good toughness			
	Medium viscosity			
Uses	Strap			
	Piping system			
	Pipe fittings			
Forms	Particle			
Processing Method	Pipeline extrusion molding			
	Extrusion			
	Injection molding			
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	1.13	g/cm³	ASTM D792	
Melt Mass-Flow Rate (MFR) (235°C/1.0 kg)	2.6	g/10 min	ASTM D1238	
Water Absorption (24 hr)	1.6	%	ASTM D570	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Strength <sup>1</sup>	80.0	MPa	ASTM D638	
Tensile Elongation <sup>2</sup> (Break)	100	%	ASTM D638	
Flexural Modulus <sup>3</sup>	2500	MPa	ASTM D790	
Flexural Strength <sup>4</sup>	100	MPa	ASTM D790	
Impact	Nominal Value	Unit	Test Method	
Notched Izod Impact (6.35 mm)	53	J/m	ASTM D256	
Thermal	Nominal Value	Unit	Test Method	

Deflection Temperature Under Lo	ad (0.45		
MPa, Unannealed)	177	°C	ASTM D648
Melting Temperature	220	°C	DSC
Additional Information			

Relative Viscosity, NYCOA Method: 3.3 to 3.4 SAVWater Extractable, NYCOA Method: Max 0.8 %Melt Flow Index, ASTM D1238, 235°C/1kg: 2.4 to 2.8 g/10 minTensile Elongation at Break, ASTM D638, 2 in/min: 100+%The value listed as Melting Point DSC, was tested in accordance with ASTM D789.

NOTE	
1.	51 mm/min
2.	51 mm/min
3.	51 mm/min
4.	51 mm/min

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