

# NYCOA Polyamide ASN 27 300 KNF

Polyamide 6

Nycoa (Nylon Corporation of America)

## Message:

NYCOA ASN 27/300 KNF is a 30% glass fiber reinforced, heat stabilized Nylon 6 resin used for injection molding. This grade features excellent strength and stiffness, dimensional stability, and a greater service life than standard grades of glass reinforce

NYCOA ASN 27/300 KNF is available in UV stable, custom colors, and impact modified grades. It also has excellent chemical resistance to greases, oils, and other hydrocarbons.

Typical applications include automotive pedals, power tool housing, and lawn & garden equipment parts.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Additive	heat stabilizer		
Features	Good dimensional stability		
	Rigid, good		
	Good strength		
	Good chemical resistance		
	Hydrocarbon resistance		
	Oil resistance		
	Grease resistance		
	Thermal Stability		
Uses	Lawn and Garden Equipment		
	Power/other tools		
	Application in Automobile Field		
	Shell		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.35	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage			ASTM D955
Flow	0.30	%	ASTM D955
Transverse flow	0.50	%	ASTM D955
Water Absorption (24 hr)	1.2	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	120		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus <sup>1</sup>	9450	MPa	ASTM D638
Tensile Strength <sup>2</sup>	178	MPa	ASTM D638
Tensile Elongation <sup>3</sup> (Break)	3.0	%	ASTM D638

Flexural Modulus <sup>4</sup>	8220	MPa	ASTM D790
Flexural Strength <sup>5</sup>	210	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (6.35 mm)	140	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	220	°C	ASTM D648
1.8 MPa, not annealed	210	°C	ASTM D648
Melting Temperature	222	°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 - 82.2	°C
Drying Time	4.0 - 6.0	hr
Rear Temperature	232 - 271	°C
Middle Temperature	243 - 282	°C
Front Temperature	254 - 291	°C
Nozzle Temperature	252 - 291	°C
Processing (Melt) Temp	254 - 291	°C
Mold Temperature	76.7 - 87.8	°C
Injection Rate	Fast	
Back Pressure	0.138 - 0.517	MPa
Cushion	1.59 - 6.35	mm
Screw L/D Ratio	16.0:1.0	
Screw Compression Ratio	3.0:1.0	

#### NOTE

1. 51 mm/min
2. 51 mm/min
3. 51 mm/min
4. 51 mm/min
5. 51 mm/min

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#### Recommended distributors for this material

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