



Chemlon® N66AN

Teknor Apex Company (Chem Polymer) - Polyamide 66

General Information

Product Description

N66AN is a fast cycling, general purpose unfilled injection moulding grade of nylon 66.

General

Material Status	• Commercial: Active
Availability	• Europe • North America
Features	• Fast Molding Cycle • General Purpose
Uses	• General Purpose
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.14	--	g/cm ³	ISO 1183
Molding Shrinkage ²	1.5 to 2.0	--	%	Internal Method
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	406000	218000	psi	ISO 527-2
Tensile Stress (Yield)	11600	8700	psi	ISO 527-2
Flexural Modulus	435000	145000	psi	ISO 178
Flexural Stress ³	13800	5080	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact Strength	3.3 ft·lb/in ²	No Break		ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature 66 psi, Unannealed	428	392	°F	ISO 75-2/B
Heat Deflection Temperature 264 psi, Unannealed	194	167	°F	ISO 75-2/A
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+15	1.0E+10	ohms	IEC 60093
Volume Resistivity	1.0E+15	1.0E+12	ohms·cm	IEC 60093
Electric Strength (0.118 in)	460	300	V/mil	IEC 60243-1
Relative Permittivity (1 MHz)	3.80	4.30		IEC 60250
Dissipation Factor (1 MHz)	0.020	0.080		IEC 60250
Comparative Tracking Index	> 600	> 600	V	IEC 60112

Processing Information

Injection	Dry	Unit
Drying Temperature	176 to 212	°F
Drying Time	2.0	hr
Rear Temperature	518 to 554	°F
Middle Temperature	518 to 554	°F
Front Temperature	518 to 554	°F
Processing (Melt) Temp	< 572	°F
Mold Temperature	140 to 176	°F
Injection Rate	Moderate	
Screw Speed	50 to 200	rpm

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Injection Notes

Back Pressure: Low to medium

Injection Pressure: Medium

No drying is necessary unless the material has been exposed to air for longer than 3 hours.

Notes

¹ Typical properties: these are not to be construed as specifications.

² Mould shrinkage is significantly influenced by many factors including wall thickness, gating, component shape and moulding conditions. The range values stated were determined from specimen bar mouldings of 1.5mm to 4mm wall thickness. They are provided as a guide for comparison purposes only and no guarantee should be inferred from their inclusion. (Specimens measured in the dry state, 24 hours after moulding).

³ At conventional deflection