+135-3858-6433 (GuangDong)
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TEKNOR APEX

Chemlon® 66A

Teknor Apex Company (Chem Polymer) - Polyamide 66

General Information

Product Description

66A is a general purpose unfilled injection moulding grade of nylon 66.

General	
Material Status	• Commercial: Active
Availability	• Europe
Features	• General Purpose
Uses	• General Purpose
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.13 to 1.15	--	g/cm³	ISO 1183
Molding Shrinkage [2]	1.4 to 1.9	--	%	Internal Method
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	392000	247000	psi	ISO 527-2
Tensile Stress (Yield)	10900	7980	psi	ISO 527-2
Flexural Modulus	363000	109000	psi	ISO 178
Flexural Stress [3]	10900	2900	psi	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength	4.5 ft·lb/in²	No Break		ISO 179
Charpy Unnotched Impact Strength	No Break	No Break		ISO 179
Notched Izod Impact Strength	2.4	4.3	ft·lb/in²	ISO 180
Unnotched Izod Impact Strength	17 ft·lb/in²	No Break		ISO 180
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				ISO 75-2/B
66 psi, Unannealed	365	347	°F	
Heat Deflection Temperature				ISO 75-2/A
264 psi, Unannealed	194	140	°F	
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	1.0E+14	1.0E+12	ohms	IEC 60093
Volume Resistivity	1.0E+16	1.0E+14	ohms·cm	IEC 60093
Electric Strength (0.118 in)	430	280	V/mil	IEC 60243-1
Relative Permittivity (1 MHz)	3.60	--		IEC 60250
Dissipation Factor (1 MHz)	0.010	0.040		IEC 60250
Comparative Tracking Index	> 600	> 600	V	IEC 60112
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Flame Rating				UL 94
Teknor Apex test result	HB	--		
Oxygen Index	24	--	%	ISO 4589-2

Processing Information

Injection	Dry	Unit
Drying Temperature	176	°F
Drying Time	2.0	hr
Rear Temperature	518 to 554	°F

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Injection	Dry	Unit
Middle Temperature	518 to 554	°F
Front Temperature	518 to 554	°F
Processing (Melt) Temp	< 572	°F
Mold Temperature	176 to 194	°F
Injection Rate	Fast	
Screw Speed	50 to 200	rpm

Injection Notes

Back Pressure: Low
Injection Pressure: High

The material is supplied dry and ready to mould in sealed, moisture proof sacks. No drying is necessary unless the material has been exposed to air for longer than three hours. The appearance of splash marks on the surface of mouldings indicates excessive moisture is present.
Should drying become necessary two hours at 80°C in a dehumidifying dryer is recommended. Alternatively material may be dried for up to six hours in a hopper drier or an air circulating oven at a temperature not exceeding 80°C.

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