



Chemlon® A40

Teknor Apex Company (Chem Polymer) - Polyamide 66

General Information

Product Description

A40 is an unfilled injection moulding grade of nylon 66 containing heat stabiliser.

General

Material Status	• Commercial: Active
Availability	• Europe
Additive	• Heat Stabilizer
Features	• Heat Stabilized
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	1.2 to 1.8	--	%	Internal Method
Water Absorption				ISO 62
Equilibrium, 73°F, 50% RH	2.5	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	421000	218000	psi	ISO 527-2
Tensile Stress	10900	7980	psi	ISO 527-2
Flexural Modulus	406000	145000	psi	ISO 178
Flexural Stress	13800	5080	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength	4.8 ft-lb/in ²	No Break		ISO 179/1eA
Charpy Unnotched Impact Strength	No Break	No Break		ISO 179/1eU
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/B
66 psi, Unannealed	428	392	°F	
Heat Deflection Temperature				ISO 75-2/A
264 psi, Unannealed	194	176	°F	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+14	1.0E+11	ohms	IEC 60093
Volume Resistivity	1.0E+16	1.0E+15	ohms·cm	IEC 60093
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.06 in)	V-2	--		UL 94
Glow Wire Flammability Index				IEC 60695-2-12
0.06 in	1380	--	°F	
Oxygen Index	27	--	%	ISO 4589-2

Processing Information

Injection	Dry	Unit
Drying Temperature	176	°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	518 to 554	°F
Mold Temperature	140 to 176	°F

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Injection	Dry Unit
Injection Rate	Fast
Back Pressure	Low
Screw Speed	Moderate

Injection Notes

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.

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, moulding shape and processing conditions. The range values given are 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).