



Chemlon® 60AL

Teknor Apex Company (Chem Polymer) - Polyamide 6

General Information

Product Description

Chemlon® 60AL is a UV stabilised, unfilled injection moulding grade of nylon 6

General

Material Status	• Commercial: Active
Availability	• Europe
Additive	• UV Stabilizer
Features	• Light Stabilized
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.13	g/cm ³	ISO 1183
Molding Shrinkage ²	1.5 to 1.8	%	Internal Method
Water Absorption (Equilibrium, 73°F, 50% RH)	2.8	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	421000	psi	ISO 527-2
Tensile Stress	11600	psi	ISO 527-2
Tensile Strain (Break)	6.0	%	ISO 527-2
Flexural Modulus	406000	psi	ISO 178
Flexural Stress (3.5% Strain)	10200	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	3.3	ft-lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength	No Break		ISO 179/1eU
Notched Izod Impact Strength	1.9	ft-lb/in ²	ISO 180/A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	365	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	158	°F	ISO 75-2/A
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+14	ohms	IEC 60093
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093
Electric Strength (0.118 in)	330	V/mil	IEC 60243-1
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in, Teknor Apex test result)	HB		UL 94
Oxygen Index	24	%	ISO 4589-2

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	2.0	hr
Rear Temperature	446 to 500	°F
Middle Temperature	446 to 500	°F
Front Temperature	446 to 500	°F
Processing (Melt) Temp	446 to 500	°F
Mold Temperature	140 to 176	°F
Injection Rate	Fast	

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Injection	Nominal Value	Unit
Back Pressure	Moderate	
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).