



Chemlon® 60GS8H

Teknor Apex Company - Polyamide 6

General Information

Product Description

60GS8H is a 40% glass sphere filled, heat stabilised nylon 6 that offers excellent rigidity coupled with minimal distortion.

General

Material Status	• Commercial: Active
Availability	• Europe • North America
Filler / Reinforcement	• Glass Bead, 30% Filler by Weight
Additive	• Heat Stabilizer
Features	• Heat Stabilized • High Rigidity
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.45	g/cm ³	ISO 1183
Molding Shrinkage ²	0.60 to 1.5	%	Internal Method
Water Absorption (Equilibrium, 73°F, 50% RH)	1.0	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	696000	psi	ISO 527-1
Tensile Stress (Break)	12800	psi	ISO 527-2
Tensile Strain (Break)	4.0	%	ISO 527-2
Flexural Modulus	653000	psi	ISO 178
Flexural Stress ³	18100	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	2.9	ft-lb/in ²	ISO 179
Charpy Unnotched Impact Strength	15	ft-lb/in ²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	> 392	°F	ISO 75-2/B
Deflection Temperature Under Load 264 psi, Unannealed	194	°F	ISO 75-2/A
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+15	ohms	IEC 60093
Volume Resistivity	1.0E+17	ohms·cm	IEC 60093
Electric Strength (0.118 in)	250	V/mil	IEC 60243-1
Relative Permittivity	3.80		IEC 60250
Dissipation Factor (1 MHz)	0.020		IEC 60250
Comparative Tracking Index	525	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Oxygen Index	22	%	ISO 4589-2

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	2.0	hr
Rear Temperature	464 to 554	°F
Middle Temperature	464 to 554	°F
Front Temperature	464 to 554	°F

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Injection	Nominal Value	Unit
Processing (Melt) Temp	< 572	°F
Mold Temperature	140 to 176	°F
Injection Rate	Fast	
Screw Speed	50 to 200	rpm

Injection Notes
Back pressure: Low
Injection pressure: High

No drying is necessary unless the materials has been exposed to air for longer than three 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 single point values stated were determined from a shallow box moulding of 50 x 50 x 10mm, with 2mm general wall thickness and internal ribbing of 1.5mm 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 Break