



# Chemlon® 60MGS6IM

Teknor Apex Company - Polyamide 6

## General Information

### Product Description

60MGS6IM is a 30% mineral & glass sphere filled, impact modified, easy flowing grade of nylon 6. It offers improved toughness at low ambient service temperatures.

### General

Material Status	• Commercial: Active		
Availability	• Europe	• North America	
Filler / Reinforcement	• Glass Bead\Mineral, 30% Filler by Weight		
Additive	• Impact Modifier		
Features	• Good Flow • Good Toughness	• Impact Modified • Low Temperature Toughness	• Medium Rigidity
Processing Method	• Injection Molding		

## ASTM & ISO Properties <sup>1</sup>

Physical	Dry	Conditioned	Unit	Test Method
Density	1.31	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage <sup>2</sup>	0.60 to 1.4	--	%	Internal Method
Water Absorption Equilibrium, 73°F, 50% RH	1.9	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Stress	11000	--	psi	ISO 527-2
Tensile Strain (Break)	11	--	%	ISO 527-2
Flexural Modulus	537000	196000	psi	ISO 178
Flexural Stress	18100	9860	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact Strength	2.9	--	ft·lb/in <sup>2</sup>	ISO 180/A
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load 66 psi, Unannealed	401	365	°F	ISO 75-2/B
Deflection Temperature Under Load 264 psi, Unannealed	151	144	°F	ISO 75-2/A
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+14	1.0E+11	ohms	IEC 60093
Volume Resistivity	1.0E+16	1.0E+14	ohms·cm	IEC 60093
Electric Strength (0.118 in)	280	200	V/mil	IEC 60243-1
Relative Permittivity	3.80	4.20		IEC 60250
Comparative Tracking Index	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating 0.06 in, Teknor Apex test result	HB	--		UL 94
Oxygen Index	22	--	%	ISO 4589-2

## Processing Information

Injection	Dry Unit
Drying Temperature	176 °F
Drying Time	2.0 to 4.0 hr

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Injection	Dry	Unit
Rear Temperature	464 to 536	°F
Middle Temperature	464 to 536	°F
Front Temperature	464 to 536	°F
Processing (Melt) Temp	482 to 527	°F
Mold Temperature	140 to 176	°F
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

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 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).