

Chemlon® 104-13 GH

Teknor Apex Company - Polyamide 66

Saturday, September 14, 2024

General Information

Product Description

Chemlon® 104-13 GH is a 13% glass fiber reinforced, impact modified polyamide 66 (PA 66) designed for injection molding and extrusion. This tough material has a wide processing window, provides a good surface appearance, and is available globally.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Heat Stabilizer	• Impact Modifier	
Features	• Good Processability • Good Surface Finish	• Good Thermal Stability • Good Toughness	• High Tensile Strength
RoHS Compliance	• Contact Manufacturer		
Automotive Specifications	• CHRYSLER MS-DB-41 CPN1987 Color: BK001 Black ¹ • FORD ESA-M4D189-A ¹	• GM GMP.PA66.057 Color: Black ¹ • GM GMP.PA66.057 Color: Natural ¹	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ²

Physical	Dry	Conditioned	Unit	Test Method
Density	1.20	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.85 to 1.2	--	%	
Flow	0.40 to 0.60	--	%	
Water Absorption (24 hr, 23°C)	0.80	--	%	ISO 62
Water Absorption Saturation, 23°C	2.2	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	5970	3650	MPa	ISO 527-1
Tensile Stress	107	67.6	MPa	ISO 527-2
Tensile Strain (Break)	3.3	13	%	ISO 527-2
Flexural Modulus	3800	2970	MPa	ISO 178
Flexural Stress	134	82.0	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength	9.0	20	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength	50	80	kJ/m ²	ISO 179
Notched Izod Impact Strength				ISO 180
23°C	10	17	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/B
0.45 MPa, Unannealed	247	--	°C	
Deflection Temperature Under Load				ISO 75-2/A
1.8 MPa, Unannealed	215	--	°C	
Melting Temperature	257	--	°C	
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.8 mm)	HB	--		UL 94

Revision Date: 7/29/2024

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Legal Statement

Dry

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Processing Information

Injection	Dry Unit
Drying Temperature	80 °C
Suggested Max Moisture	0.17 %
Processing (Melt) Temp	265 to 293 °C
Mold Temperature	77 to 88 °C

Injection Notes

Maximum peak injection pressure should not exceed 80% of the machine's maximum pressure capability. Start with a holding pressure that is half the peak injection pressure. Perform a rheology curve in order to determine appropriate injection rate.

Extrusion	Dry Unit
Drying Temperature	80 °C
Suggested Max Moisture	0.17 %
Melt Temperature	265 to 293 °C
Die Temperature	265 to 293 °C
Screw L/D Ratio	25.0:1.0 to 30.0:1.0

Extrusion Notes

For cylinder zones, use an ascending temperature profile that achieves the recommended melt temperature. The die temperature should be the same temperature as the melt or slightly higher. Suggested compression ratio is 3-4:1.

Notes

¹ Automotive site approvals apply for US manufactured compound only

² Typical properties: these are not to be construed as specifications.

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