GLS 458-140

Thermoplastic Elastomer

Key Characteristics

Product Description

GLS 458-140 is an easy processing, general purpose TPE designed for a wide variety of applications, and may be appropriate where FDA and EU 10/2011 compliances are required.

- Non-Slip Grip
- Overmold Adhesion to Polypropylene
- Soft Touch, Rubbery Feel

General			
Material Status	• Commercial: Active		
Regional Availability	• Europe		
Features	• General Purpose • Good Colorability	• Good Flow • Good Processability	• Recyclable Material
Uses	• Consumer Applications • Flexible Grips • Gaskets	• General Purpose • Household Goods • Overmolding	• Seals • Soft Touch Applications
Agency Ratings	• EU 10/2011 [1]	• FDA 21 CFR 177.1210 [1]	• FDA 21 CFR 177.2600 [1]
RoHS Compliance	• RoHS Compliant		
Appearance	• Translucent		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [2]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	0.890 g/cm³	0.890 g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)	60 g/10 min	60 g/10 min	ISO 1133
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress			ISO 37
100% Strain, 0.0787 in (2.00 mm)	145 psi	1.00 MPa	
Tensile Stress			ISO 37
300% Strain, 0.0787 in (2.00 mm)	247 psi	1.70 MPa	
Tensile Strength			ISO 37
Break, 0.0787 in (2.00 mm)	1310 psi	9.00 MPa	
Tensile Elongation			ISO 37
Break, 0.0787 in (2.00 mm)	850 %	850 %	
Tear Strength (0.0787 in (2.00 mm))	117 lbf/in	20.5 kN/m	ISO 34
Compression Set			ISO 815
73°F (23°C), 72 hr	20 %	20 %	
158°F (70°C), 22 hr	41 %	41 %	
212°F (100°C), 22 hr	64 %	64 %	
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Shore Hardness (Shore A, 10 sec)	40	40	ISO 48-4
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ISO 11443
392°F (200°C), 11200 sec^-1	8.60 Pa·s	8.60 Pa·s	

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Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	320 to 374 °F	160 to 190 °C
Middle Temperature	347 to 383 °F	175 to 195 °C
Front Temperature	374 to 410 °F	190 to 210 °C
Nozzle Temperature	374 to 419 °F	190 to 215 °C
Mold Temperature	77 to 113 °F	25 to 45 °C
Injection Rate	Moderate-Fast	Moderate-Fast
Back Pressure	290 to 1450 psi	2.00 to 10.0 MPa

Notes

[1] Product rating may be influenced by end product design and/or conditions of use. Please contact GLS Thermoplastic Elastomers for information addressing EU (EU, 10/2011) and FDA (21 CFR 177.1210 and 177.2600) compliance.

[2] Typical values are not to be construed as specifications.

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