GLS 458-142

Thermoplastic Elastomer

Key Characteristics

Product Description

GLS 458-142 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)	203 psi	1.40 MPa	
Tensile Stress			ISO 37
300% Strain, 0.0787 in (2.00 mm)	363 psi	2.50 MPa	
Tensile Strength			ISO 37
Break, 0.0787 in (2.00 mm)	943 psi	6.50 MPa	
Tensile Elongation			ISO 37
Break, 0.0787 in (2.00 mm)	650 %	650 %	
Tear Strength (0.0787 in (2.00 mm))	143 lbf/in	25.0 kN/m	ISO 34
Compression Set (73°F (23°C), 72 hr)	23 %	23 %	ISO 815
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	14.3 Pa·s	14.3 Pa·s	

Copyright ©, 2026 Avient Corporation. Avient makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as “typical” or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. Avient makes no warranties or guarantees respecting suitability of either Avient’s products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. Avient MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.

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.

CONTACT INFORMATION

North America
Avon Lake, United States
33587 Walker Road
Avon Lake, OH, United States , 44012
+1 440 930 1000
+1 844 4AVIENT

South America
Sao Paulo, Brazil
Av. Francisco Nakasato, 1700
13295-000 Itupeva
Sao Paulo, Brazil
+55 11 4593 9200

Asia
Shanghai, China
2F, Block C
200 Jinsu Road
Pudong, 201206
Shanghai, China
+86 (0) 21 6028 4888

Europe
Pommerloch, Luxembourg
19 Route de Bastogne
Pommerloch, Luxembourg , L-9638
+352 269 050 35

avient.com

Copyright ©, 2026 Avient Corporation. Avient makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as “typical” or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. Avient makes no warranties or guarantees respecting suitability of either Avient’s products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. Avient MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.