

INSPIRE™ TF1500 ESU

Performance Polymers

Overview

Talc filled, high impact PP compound. INSPIRE* TF1500 ESU has been developed for aesthetic automotive applications, with good scratch resistance and UV light stabilisation. It is especially suitable for car interior applications requiring ductility, because of its high impact resistance, even at low temperatures.

Application areas:

- Instrument panel retainer
- Instrument panel trim
- Midconsole
- Door panels
- Door pockets
- Interior trim
- Trunk trim

Automotive Specifications

- GM QK 004022 U Color: Charcoal
- PSA Peugeot-Citroën SPA X62 3858
- IMDS ID 21758150 Color: Charcoal

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.02 g/cm ³	1.02 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	9.5 g/10 min	9.5 g/10 min	ISO 1133
Molding Shrinkage	9.0E-3 to 0.012 in/in	0.90 to 1.2 %	ISO 294-4
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	283000 psi	1950 MPa	ISO 527-2/1
Tensile Stress (Yield)	2900 psi	20.0 MPa	ISO 527-2/50
Tensile Elongation			
Break ¹	70 %	70 %	ISO 527
Break	70 %	70 %	ISO 527-2/50
Flexural Modulus ^{2, 3}	268000 psi	1850 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact Strength			ISO 180/1A
-40°F (-40°C)	2.4 ft·lb/in ²	5.0 kJ/m ²	
32°F (0°C)	4.8 ft·lb/in ²	10 kJ/m ²	
73°F (23°C)	12 ft·lb/in ²	25 kJ/m ²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	230 °F	110 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	136 °F	58.0 °C	ISO 75-2/A
Vicat Softening Temperature	275 °F	135 °C	ISO 306/A120
CLTE - Flow	4.7E-5 in/in/°F	8.5E-5 cm/cm/°C	ASTM D696

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ 2.0 in/min (50 mm/min)

² 0.079 in/min (2.0 mm/min)

³ 3 point load



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North America	
U.S.	+1-855-TRINSEO (+1-855-874-6736)
U.S. - Canada	+1-989-633-1718
Latin America	
Brazil	+55-11-5184-8722
Argentina, Chile, South Region of LAA	+54-11-4319-0100
Mexico, Colombia, North Region of LAA	+52-55-5201-4700
Europe/Middle East/Africa	
	+800-444-11-444
	+31-11567-2601
Asia Pacific	
China	+603-7965-53-19
	+86-21-3851-1017
Email	CIG@trinseo.com

www.trinseo.com

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