

# INSPIRE™ TF1500

## Performance Polymers

### Overview

Talc filled, high impact PP Compound. INSPIRE™ TF1500 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 temperature.

INSPIRE™ TF1500 can be delivered in two versions:

- ESU: pre-colored and UV stabilized
- SC: natural for Self-Colouring to be used in combination with suitable Trinseo colour concentrates

Applications:

- Instrument panel retainer
- Instrument panel trim
- Mid console
- Door panels
- Door pockets
- Interior trim
- Trunk trim

Automotive Specifications

- GM QK 004022 U
- JLR STJLR.51.353
- JLR STJLR.51.5262
- VOLKSWAGEN TL 52388-D
- VOLVO STD 1212,86
- IMDS ID 21758150 Color: Charcoal
- JLR STJLR.51.5229
- STELLANTIS SPA X62 3858
- VOLKSWAGEN TL 52388-E

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.01 g/cm <sup>3</sup>	1.01 g/cm <sup>3</sup>	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	261000 psi	1800 MPa	ISO 527-1/1
Tensile Stress (Yield)	3630 psi	25.0 MPa	ISO 527-2/50
Tensile Strain (Break)	70 %	70 %	ISO 527-2/50
Flexural Modulus	261000 psi	1800 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
32°F (0°C)	3.3 ft-lb/in <sup>2</sup>	7.0 kJ/m <sup>2</sup>	
73°F (23°C)	15 ft-lb/in <sup>2</sup>	32 kJ/m <sup>2</sup>	
Multi-Axial Instrumented Impact Energy			ISO 6603-2
32°F (0°C), 0.118 in (3.00 mm), Ductile Failure	47.2 ft-lb	64.0 J	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ISO 75-2/B
66 psi (0.45 MPa), Unannealed	212 °F	100 °C	
Vicat Softening Temperature	275 °F	135 °C	ISO 306/A120

<b>Injection</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>
Drying Temperature	176 °F	80 °C
Drying Time	2.0 hr	2.0 hr
Processing (Melt) Temp	374 to 464 °F	190 to 240 °C
Mold Temperature	68 to 140 °F	20 to 60 °C