

# INSPIRE™ TF1500SC

## Performance Polymers

### Overview

High impact talc filled natural PP compounded developed for covered interior automotive applications.

Can also be used for self-colouration (SC) in combination with PROMATCH™ combi-masterbatches.

INSPIRE™ TF1500 SC combines excellent processing and high impact performance. It is intended for applications requiring good balance between toughness and stiffness.

#### Applications

- Automotive interior moulded parts

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.04 g/cm <sup>3</sup>	1.04 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	283000 psi	1950 MPa	ISO 527-2/1
Tensile Stress (Yield)	2900 psi	20.0 MPa	ISO 527-2/50
Tensile Strain (Break)	70 %	70 %	ISO 527-2/50
Flexural Modulus <sup>1,2</sup>	268000 psi	1850 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact Strength			ISO 180/1A
32°F (0°C)	3.8 ft-lb/in <sup>2</sup>	8.0 kJ/m <sup>2</sup>	
73°F (23°C)	7.1 ft-lb/in <sup>2</sup>	15 kJ/m <sup>2</sup>	
Multi-Axial Instrumented Impact Energy <sup>3</sup>			ISO 6603-2
73°F (23°C), 0.118 in (3.00 mm)	51.6 ft-lb	70.0 J	
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 (-22 to 73°F (-30 to 23°C))	4.7E-5 in/in/°F	8.5E-5 cm/cm/°C	ISO 11359-2

#### Additional Information

The information and data contained herein is specific to the natural (neat) product. For properties of the material in combination with PROMATCH\* combi masterbatches (PP Combi Masterbatch CMPP 10.22 and CMPP 10.23) please refer to the technical data sheet for INSPIRE\* TF1500 ESU.

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	2.0 to 3.0 hr	2.0 to 3.0 hr
Processing (Melt) Temp	428 to 500 °F	220 to 260 °C
Mold Temperature	86 to 140 °F	30 to 60 °C