

# INSPIRE™ TF1301

## Performance Polymers

### Overview

INSPIRE™ TF1301 is a Talc filled, high Flow PP Compound for automotive interior trim applications. It is especially suitable for car interior applications requiring low temperature ductility.

INSPIRE™ TF1301:

- Is a natural TPO developed for Self-Coloring, to be used in combination with suitable color concentrates

Applications:

- Interior Pillars and Trim
- Door panels and Trim
- Interior Trim

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.965 g/cm <sup>3</sup>	0.965 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	17 g/10 min	17 g/10 min	ASTM D1238
Molding Shrinkage	7.0E-3 to 9.0E-3 in/in	0.70 to 0.90 %	ISO 294-4
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	114000 psi	785 MPa	ISO 527-1/1
Tensile Strength			
Yield <sup>1</sup>	2350 psi	16.2 MPa	ASTM D638
Yield	2360 psi	16.3 MPa	ISO 527-2/50
Tensile Elongation			
Yield <sup>1</sup>	10 %	10 %	ASTM D638
Break	> 200 %	> 200 %	ISO 527-2/50
Flexural Modulus			
--	158000 psi	1090 MPa	ASTM D790
--	181000 psi	1250 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			
73°F (23°C)	No Break	No Break	ASTM D256A
73°F (23°C)	25 ft·lb/in <sup>2</sup>	53 kJ/m <sup>2</sup>	ISO 180/1A
Multi-Axial Instrumented Impact Energy			ISO 6603-2
-40°F (-40°C), 0.0866 in (2.20 mm), Ductile Failure	17.7 ft·lb	24.0 J	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	185 °F	85.0 °C	ISO 75-2/B
Injection	Nominal Value (English)	Nominal Value (SI)	
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	