

INSPIRE™ TF0808

Performance Polymers

Overview

INSPIRE™ TF0808S(U) is a 5 % talc filled PP exhibiting high flow characteristics in combination with a high impact resistance and a high stiffness. It is particularly well suited for low wall thickness bumper skins.

This grade is proposed in two versions:

- INSPIRE TF0808S for painted parts
- INSPIRE TF0808SU for unpainted parts with a UV stabilization package

Application areas:

- Bumper skins
- Bumper strips

Automotive Specifications

- PSA Peugeot-Citroën SPA X62 3856

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.930 g/cm ³	0.930 g/cm ³	ISO 1183/B
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	17 g/10 min	17 g/10 min	ISO 1133
Molding Shrinkage	8.0E-3 to 0.010 in/in	0.80 to 1.0 %	ISO 294-4
Shrinkage - Total	1.0 to 1.2 %	1.0 to 1.2 %	ISO 294-4
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	174000 psi	1200 MPa	ISO 527-2/1
Tensile Stress (Yield)	2900 psi	20.0 MPa	ISO 527-2/50
Tensile Strain (Yield)	> 400 %	> 400 %	ISO 527-2
Flexural Modulus ^{1, 2}	189000 psi	1300 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-40°F (-40°C)	1.9 ft-lb/in ²	4.0 kJ/m ²	
73°F (23°C)	21 ft-lb/in ²	45 kJ/m ²	
Notched Izod Impact Strength			ISO 180/1A
-40°F (-40°C)	1.9 ft-lb/in ²	4.0 kJ/m ²	
73°F (23°C)	20 ft-lb/in ²	42 kJ/m ²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	176 °F	80.0 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	122 °F	50.0 °C	ISO 75-2/A
Vicat Softening Temperature	257 °F	125 °C	ISO 306/A120
CLTE - Flow			DIN 53752
-22 to 77°F (-30 to 25°C)	3.5E-5 in/in/°F	6.3E-5 cm/cm/°C	
77 to 176°F (25 to 80°C)	5.2E-5 in/in/°F	9.3E-5 cm/cm/°C	
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 500 °F	190 to 260 °C	
Mold Temperature	68 to 140 °F	20 to 60 °C	