INSPIRE™ TF7000 ES

Trinseo - Performance Polymers

Tuesday, November 5, 2019

General Information

Product Description

INSPIRE* TF7000 ES Natural Performance Polymer DA™ is a very high stiffness (2400 MPa) TPO designed for instrument panel upper and lower components, as well as other interior trim applications where stiffness, good impact resistance, and good molded-in-color part aesthetics are important. Its high melt flow rate also allows for rapid filling of large parts in the injection molding process.

Main Characteristics:

- Excellent Surface Aesthetics
- Good Scratch & Mar Resistance
- Instrument Panel Uppers/Lowers
- Interior Trim Applications
- High Flow
- Approved on DaimlerChrylser MS-DC265D

General			
Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Talc, 20% Filler by Weight		
Features	• Good Impact Resistance • Good Scratch Resistance	• High Flow • High Stiffness	• Pleasing Surface Appearance
Uses	• Automotive Applications	• Automotive Instrument Panel	• Automotive Interior Parts
Automotive Specifications	• CHRYSLER MS-DC-265 Type D	• GM QK 004023 U Color: Charcoal	• IMDS ID 30867190 Color: Charcoal
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.03		ASTM D792
Melt Mass-Flow Rate (230°C/2.16 kg)	27	g/10 min	ASTM D1238
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (Yield)	3340	psi	ISO 527-2/50
Flexural Modulus [2]	348000	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact Strength (73°F)	14	ft·lb/in²	ISO 180/1A
Instrumented Dart Impact [3]			ASTM D3763
32°F, Ductile	257	in·lb	
73°F, Ductile	204	in·lb	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	70		ASTM D2240
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (66 psi, Unannealed)	225	°F	ISO 75-2/Bf
Heat Deflection Temperature (264 psi, Unannealed)	142	°F	ISO 75-2/Af
Flammability	**Nominal Value**	**Unit**	**Test Method**
Burning Rate [4]	1.9	in/min	FMVSS 302

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Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 0.079 in/min

[3] 21.7 ft/sec

[4] This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.