

# INSPIRE™ TF1305 ESU

Performance Polymers

Trinseo

## Message:

Talc filled, high impact PP Compound. INSPIRE™ TF1305 ESU has been developed for highly demanding aesthetic automotive applications, with superior 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 and requiring very high level of scratch resistance because of the location in the car interior.

### Applications:

Instrument panel retainer

Instrument panel trim

Mid console

Door panels

Door pockets

Interior trim

Trunk trim

General Information			
Filler / Reinforcement	Talc,15% Filler by Weight		
Features	Ductile		
	High Impact Resistance		
	Low Temperature Impact Resistance		
	Pleasing Surface Appearance		
	Scratch Resistant		
Uses	Automotive Applications		
	Automotive Instrument Panel		
	Automotive Interior Parts		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.02	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	9.6	g/10 min	ISO 1133
Molding Shrinkage	0.90 to 1.2	%	ISO 294-4
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1950	MPa	ISO 527-2/1
Tensile Stress (Yield)	25.0	MPa	ISO 527-2/50
Tensile Strain (Break)	70	%	ISO 527-2/50
Flexural Modulus	1850	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength			ISO 180/1A
-40°C	5.0	kJ/m <sup>2</sup>	
0°C	10	kJ/m <sup>2</sup>	

23°C	25	kJ/m <sup>2</sup>	
Multi-Axial Instrumented Impact Energy (0°C, Ductile Failure)	50.0	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	110	°C	ISO 75-2/B
1.8 MPa, Unannealed	58.0	°C	ISO 75-2/A
Vicat Softening Temperature	135	°C	ISO 306/A120
CLTE - Flow	8.5E-5	cm/cm/°C	ASTM D696

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#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

