Developmental DTF1405.00
Performance Polymers

Overview

Talc filled, high impact PP Compound. DTF1405.00 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.

DTF1405.00 ESU also exhibits low volatile organic carbon emissions.

DTF1405.00 can be delivered in two versions:

- ESU: pre-colored and UV stabilized
- SC: natural for Self-Colouring to be used in combination with suitable Trinseo colour concentrates

Applications:

- Instrument panel retainer
- Instrument panel trim
- Mid console
- Door panels
- Door pockets
- Interior trim
- Trunk trim

Automotive Specifications

- BMW GS 93016

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.01	g/cm³	1.01	g/cm³	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
VOC Content	20.0	µg/g	20.0	µg/g	VDA 277
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus	261000	psi	1800	MPa	ISO 527-1/1
Tensile Stress (Yield)	3630	psi	25.0	MPa	ISO 527-2/50
Tensile Strain (Break)	70	%	70	%	ISO 527-2/50
Flexural Modulus	261000	psi	1800	MPa	ISO 178
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Charpy Notched Impact Strength					ISO 179/1eA
32°F (0°C)	3.3	ft·lb/in²	7.0	kJ/m²	
73°F (23°C)	15	ft·lb/in²	32	kJ/m²	
Multi-Axial Instrumented Impact Energy					ISO 6603-2
32°F (0°C), 0.118 in (3.00 mm), Ductile Failure	47.2	ft·lb	64.0	J	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load					ISO 75-2/B
66 psi (0.45 MPa), Unannealed	212	°F	100	°C	
Vicat Softening Temperature	275	°F	135	°C	ISO 306/A120

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