Developmental DTF2502.04 ESU
Experimental Compounded Polypropylene

Overview

DTF2502.04 ESU is a high flow high modulus polypropylene compound for automotive interior technical mouldings.

DTF2502.04 ESU is intended for applications requiring high-class surface finish with high stiffness and impact performance.

Applications:

- Instrument Panel
- Door panels
- Pillar trim

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.05	g/cm³	1.05	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	22	g/10 min	22	g/10 min	ISO 1133
Molding Shrinkage	6.0E-3 to 0.010	in/in	0.60 to 1.0	%	ISO 294-4
Post Shrinkage	7.0 to 12	mil/in	0.70 to 1.2	%	ISO 294-4
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus	305000	psi	2100	MPa	ISO 527-2/1
Tensile Stress (Yield)	3340	psi	23.0	MPa	ISO 527-2/50
Tensile Strain (Break)	400	%	400	%	ISO 527-2/10
Flexural Modulus [1, 2]	348000	psi	2400	MPa	ISO 178
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Charpy Notched Impact Strength					ISO 179/1eA
-22°F (-30°C)	1.8	ft·lb/in²	3.8	kJ/m²	
73°F (23°C)	14	ft·lb/in²	30	kJ/m²	
Notched Izod Impact Strength					ISO 180/1A
-22°F (-30°C)	1.9	ft·lb/in²	4.0	kJ/m²	
73°F (23°C)	16	ft·lb/in²	33	kJ/m²	
Multi-Axial Instrumented Impact Energy [3]					ISO 6603-2
32°F (0°C), 0.118 in (3.00 mm)	35.4	ft·lb	48.0	J	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Heat Deflection Temperature					
66 psi (0.45 MPa), Unannealed	243	°F	117	°C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	149	°F	65.0	°C	ISO 75-2/A
Vicat Softening Temperature	284	°F	140	°C	ISO 306/A120
Flammability	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Burning Rate [4] (0.0394 in (1.00 mm))	1.5	in/min	38	mm/min	ISO 3795
Fogging (212°F (100°C))	< 1.00	Mg/g	< 1.00	Mg/g	ISO 6452

Injection	Nominal Value	(English)	Nominal Value	(SI)
Drying Temperature	176	°F	80	°C
Drying Time	2.0 to 3.0	hr	2.0 to 3.0	hr
Processing (Melt) Temp	392 to 500	°F	200 to 260	°C
Mold Temperature	68 to 140	°F	20 to 60	°C

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

[1] 0.079 in/min (2.0 mm/min)

[2] 3-points

[3] Energy to break

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

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