TRINSEO™

PULSE™ EXT 100
PC/ABS Engineering Resin

Overview

PULSE™ EXT 100 engineering resin has been designed to provide excellent processability, high heat resistance, and high impact strength at room and low temperatures.

PULSE EXT 100 engineering resin has been used in automotive plated and painted exterior trim applications.

Applications:

- Front Grilles
- Wheel Covers and Center Caps
- Decorative Trim
- Name Plates and Badges

Automotive Specifications

- GM GMP.ABS+PC.010
- STELLANTIS MS-DB-195 CPN3094
- TOYOTA TSM 5526G-1
- STELLANTIS MS-DB-195 CPN2967
- STELLANTIS MS-DB-195 CPN3159

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density					
--	1.14	g/cm³	1.14	g/cm³	ASTM D792
--	1.13	g/cm³	1.13	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)					
230°C/3.8 kg	1.3	g/10 min	1.3	g/10 min	ASTM D1238
260°C/5.0 kg	7.5	g/10 min	7.5	g/10 min	ISO 1133
Molding Shrinkage	5.5E-3 to 6.5E-3	in/in	0.55 to 0.65	%	ISO 294-4
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus	334000	psi	2300	MPa	ISO 527-1/1
Tensile Strength					
Yield [1]	7500	psi	51.7	MPa	ASTM D638
Yield	7830	psi	54.0	MPa	ISO 527-2/50
Break	6670	psi	46.0	MPa	ISO 527-2/50
Tensile Strain					
Yield	9.0	%	9.0	%	ISO 527-2/50
Break [1]	80	%	80	%	ASTM D638
Nominal Tensile Strain at Break	> 80	%	> 80	%	ISO 527-2/50
Flexural Modulus [2]	325000	psi	2240	MPa	ASTM D790
Flexural Strength [2]	12000	psi	82.7	MPa	ASTM D790
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Charpy Notched Impact Strength					ISO 179/1eA
-40°F (-40°C)	16	ft·lb/in²	33	kJ/m²	
73°F (23°C)	26	ft·lb/in²	55	kJ/m²	
Notched Izod Impact					ASTM D256
-20°F (-29°C)	9.0	ft·lb/in	480	J/m	
73°F (23°C)	12	ft·lb/in	640	J/m	
Instrumented Dart Impact [3]					ASTM D3763
-20°F (-29°C), 0.126 in (3.20 mm), Total Energy	530	in·lb	59.9	J	
73°F (23°C), 0.126 in (3.20 mm), Total Energy	480	in·lb	54.2	J	

Thermal	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Deflection Temperature Under Load					
66 psi (0.45 MPa), Unannealed	256	°F	124	°C	ASTM D648
264 psi (1.8 MPa), Unannealed	225	°F	107	°C	ASTM D648
264 psi (1.8 MPa), Unannealed	226	°F	108	°C	ISO 75-2/A
Vicat Softening Temperature	250	°F	121	°C	ISO 306/B50
CLTE - Flow (-40 to 176°F (-40 to 80°C))	4.0E-5	in/in/°F	7.2E-5	cm/cm/°C	ASTM D696