

Technical Information



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

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density			
--	1.14 g/cm ³	1.14 g/cm ³	ASTM D792
--	1.13 g/cm ³	1.13 g/cm ³	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/in ²	33 kJ/m ²	
73°F (23°C)	26 ft-lb/in ²	55 kJ/m ²	
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

Notes

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

¹ 2.0 in/min (50 mm/min)

² 0.051 in/min (1.3 mm/min)

³ 11.1 ft/sec (3.39 m/sec)

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