

PULSE™ 2100LG

PC/ABS Engineering Resin

Overview

PULSE™ 2100LG Engineering Resin is designed to provide top performance in tough applications, from single piece items to intricate components. Ideal for energy management solutions, it can withstand high and low temperature extremes and rapid, repeated temperature fluctuations.

Benefits:

- Low gloss appearance
- Low temperature ductility
- Wide range of performance
- Superior processability
- Lot to lot consistency
- Good chemical resistance

Automotive Specifications

- 3M 11-0003-5762-1
- FORD WSS-M4D924-B1
- VOLKSWAGEN TL 522 31-A
- CHRYSLER MS-DB-195 CPN3964
- GM GMW15581P-ABS+PC-T1
- VOLKSWAGEN TL 522 31-B

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.13 g/cm ³	1.13 g/cm ³	ASTM D792 ISO 1183/B
Melt Mass-Flow Rate (MFR)			
260°C/3.8 kg	5.0 g/10 min	5.0 g/10 min	ASTM D1238
260°C/5.0 kg	7.8 g/10 min	7.8 g/10 min	ISO 1133
Molding Shrinkage			
Flow	6.0E-3 in/in	0.60 %	ASTM D955
--	6.0E-3 in/in	0.60 %	ISO 294-4
Water Absorption (24 hr, 73°F (23°C))	0.15 %	0.15 %	ASTM D570 ISO 62
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			
0.126 in (3.20 mm), Injection Molded	340000 psi	2340 MPa	ASTM D638
--	363000 psi	2500 MPa	ISO 527-2
Tensile Strength			
Yield, 0.126 in (3.20 mm), Injection Molded	7700 psi	53.1 MPa	ASTM D638
Yield	7400 psi	51.0 MPa	ISO 527-2
Break, 0.126 in (3.20 mm), Injection Molded	7800 psi	53.8 MPa	ASTM D638
Tensile Elongation			
Yield, 0.126 in (3.20 mm), Injection Molded	5.0 %	5.0 %	ASTM D638
Yield	4.5 %	4.5 %	ISO 527-2
Break, 0.126 in (3.20 mm), Injection Molded	130 %	130 %	ASTM D638
Break	120 %	120 %	ISO 527-2
Flexural Modulus			
0.126 in (3.20 mm), Injection Molded	340000 psi	2340 MPa	ASTM D790
--	334000 psi	2300 MPa	ISO 178
Flexural Strength			
0.126 in (3.20 mm), Injection Molded	11700 psi	80.7 MPa	ASTM D790
--	11300 psi	78.0 MPa	ISO 178

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			
-20°F (-29°C), 0.126 in (3.20 mm), Injection Molded	10 ft-lb/in	530 J/m	ASTM D256
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	12 ft-lb/in	640 J/m	ASTM D256
-40°F (-40°C)	11 ft-lb/in ²	24 kJ/m ²	ISO 180
-22°F (-30°C)	15 ft-lb/in ²	32 kJ/m ²	ISO 180
73°F (23°C)	25 ft-lb/in ²	52 kJ/m ²	ISO 180
Instrumented Dart Impact ¹			ASTM D3763
-20°F (-29°C), 0.126 in (3.20 mm), Peak Energy	550 in-lb	62.1 J	
73°F (23°C), 0.126 in (3.20 mm), Peak Energy	500 in-lb	56.5 J	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed, 0.126 in (3.20 mm)	265 °F	129 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	262 °F	128 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed, 0.126 in (3.20 mm)	225 °F	107 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	223 °F	106 °C	ISO 75-2/A
Vicat Softening Temperature			
--	290 °F	143 °C	ASTM D1525 ²
--	288 °F	142 °C	ISO 306/A120
--	262 °F	128 °C	ISO 306/B50
CLTE - Flow (-40 to 180°F (-40 to 82°C))	4.1E-5 in/in/°F	7.4E-5 cm/cm/°C	ASTM D696
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gardner Gloss (60°, Smooth)	25	25	ASTM D542
GMCP88 - Light Stipple	6.5 %	6.5 %	ASTM D542
Monticello	3.3 %	3.3 %	ASTM D542

Notes

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

¹ 21.7 ft/sec (6.60 m/sec)

² Rate A (50°C/h), Loading 2 (50 N)



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