

MAGNUM™ 3325 SLG ABS Resin

Overview

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MAGNUM™ 3325SLG is a medium heat ABS. Its very low gloss combined with a high flow makes it specifically suitable for unpainted interior automotive applications. MAGNUM™ 3325SLG can thereby help you to save up to 50% of the part costs.

Benefits:

- Lot to lot consistency allowing for optimal machine parameters settings from the start
- Self-coloring enabling improvement of costs by using less pigments and lowering your logistic costs
- Low VOC allowing a better interior air quality facing increasing regulatory and OEMs constraints.
- Heat stability during wide range of processing temperatures: enhanced part design freedom
- High scratch and mar resistance for an improved aesthetic durability of the parts
- Easier recyclability of unpainted part

Applications:

- Matt/unpainted interior automotive applications
- Mid-consoles
- Pillars
- Door liners
- Glove boxes

Automotive Specifications

- CHRYSLER MS-DB-191 Type A
- GM GMP.ABS.003
- FORD WSK-M4D827-A
- GM GMW15572P-ABS-T2

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm ³	1.05 g/cm ³	ASTM D792 ISO 1183/B
Apparent (Bulk) Density	0.69 g/cm ³	0.69 g/cm ³	ASTM D1895
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	3.1 g/10 min	3.1 g/10 min	ASTM D1238 ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	5.3E-3 in/in	0.53 %	
Flow	5.2E-3 in/in	0.52 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			
-- ¹	301000 psi	2080 MPa	ASTM D638
--	278000 psi	1920 MPa	ISO 527-2
Tensile Strength			
Yield ¹	5800 psi	40.0 MPa	ASTM D638
Yield	5370 psi	37.0 MPa	ISO 527-2/50
Tensile Elongation			
Yield ¹	2.8 %	2.8 %	ASTM D638
Yield	2.8 %	2.8 %	ISO 527-2/50
Break ¹	22 %	22 %	ASTM D638
Break	19 %	19 %	ISO 527-2/50
Flexural Modulus			
-- ²	311000 psi	2140 MPa	ASTM D790
-- ^{3,4}	300000 psi	2070 MPa	ISO 178

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Flexural Strength			
... ²	9300 psi	64.1 MPa	ASTM D790
... ^{3, 4}	8850 psi	61.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	5.2 ft-lb/in ²	11 kJ/m ²	
73°F (23°C)	7.6 ft-lb/in ²	16 kJ/m ²	
Notched Izod Impact			
-22°F (-30°C)	2.4 ft-lb/in	130 J/m	ASTM D256
73°F (23°C)	3.5 ft-lb/in	190 J/m	ASTM D256
-22°F (-30°C)	5.2 ft-lb/in ²	11 kJ/m ²	ISO 180/A
73°F (23°C)	8.6 ft-lb/in ²	18 kJ/m ²	ISO 180/A
Instrumented Dart Impact			ASTM D3763
-22°F (-30°C), Peak Energy	204 in-lb	23.0 J	
73°F (23°C), Peak Energy	266 in-lb	30.0 J	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	206 °F	96.7 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	207 °F	97.0 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	180 °F	82.2 °C	ASTM D648 ISO 75-2/A
Vicat Softening Temperature	214 °F	101 °C	ISO 306/B50 ASTM D1525 ⁵
CLTE			ASTM E831
Flow : -40 to 212°F (-40 to 100°C)	4.6E-5 in/in/°F	8.3E-5 cm/cm/°C	
Transverse : -40 to 212°F (-40 to 100°C)	5.0E-5 in/in/°F	9.0E-5 cm/cm/°C	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
FMVSS Flammability ⁶	0.96 in/min	24 mm/min	FMVSS 302
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	180 to 185 °F	82 to 85 °C	
Drying Time	> 2.0 hr	> 2.0 hr	
Rear Temperature	460 °F	238 °C	
Middle Temperature	480 °F	249 °C	
Front Temperature	489 °F	254 °C	
Nozzle Temperature	480 to 489 °F	249 to 254 °C	
Processing (Melt) Temp	469 to 520 °F	243 to 271 °C	
Mold Temperature	100 to 151 °F	38 to 66 °C	

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 (51 mm/min)

² Method I (3 point load), 0.051 in/min (1.3 mm/min)

³ 0.079 in/min (2.0 mm/min)

⁴ 3-points

⁵ Rate A (50°C/h), Loading 2 (50 N)

⁶ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.



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