

Technical Information



MAGNUM™ 8434 ABS Resin

Overview

Overview:

MAGNUM 8434 is a medium heat ABS. It is suitable for interior automotive applications requiring high gloss.

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

Applications:

- Various interior trims
- [TBD]

Automotive Specifications

- FORD WSS-M4D827-A3 Color: Natural
- GM QK 002022 Color: Natural

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm ³	1.05 g/cm ³	ISO 1183/B
Apparent Density	0.65 g/cm ³	0.65 g/cm ³	ISO 60
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	13 g/10 min	13 g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	0.793 in ³ /10min	13.0 cm ³ /10min	ISO 1133
Molding Shrinkage - Flow	4.0E-3 to 7.0E-3 in/in	0.40 to 0.70 %	ISO 294-4
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			ISO 527-2
0.126 in (3.20 mm), Injection Molded	305000 psi	2100 MPa	
Tensile Stress			
Yield, 0.126 in (3.20 mm), Injection Molded	6820 psi	47.0 MPa	ISO 527-2/50
Yield, 0.126 in (3.20 mm), Injection Molded	6960 psi	48.0 MPa	ISO 527-2/100
Tensile Strain			ISO 527-2/50
Yield, 0.126 in (3.20 mm), Injection Molded	2.7 %	2.7 %	ISO 527-2/100
Flexural Modulus ^{1, 2}			ISO 178
0.126 in (3.20 mm), Injection Molded	305000 psi	2100 MPa	
Flexural Stress ^{1, 2}			ISO 178
0.126 in (3.20 mm), Injection Molded	9430 psi	65.0 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			
-22°F (-30°C), Injection Molded	4.8 ft-lb/in ²	10 kJ/m ²	ISO 179/1eA
-22°F (-30°C), Injection Molded	3.3 ft-lb/in ²	7.0 kJ/m ²	ISO 179/2C
73°F (23°C), Injection Molded	5.7 ft-lb/in ²	12 kJ/m ²	ISO 179/2C
73°F (23°C), Injection Molded	9.0 ft-lb/in ²	19 kJ/m ²	ISO 179/1eA
Notched Izod Impact Strength			ISO 180/A
-22°F (-30°C), Injection Molded	4.3 ft-lb/in ²	9.0 kJ/m ²	
73°F (23°C), Injection Molded	10 ft-lb/in ²	21 kJ/m ²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			ISO 75-2/A
264 psi (1.8 MPa), Annealed	216 °F	102 °C	
Vicat Softening Temperature	214 °F	101 °C	ISO 306/B50

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate ³ (0.0787 in (2.00 mm))	1.8 in/min	45 mm/min	ISO 3795
Flame Rating ³			UL 94
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	
Carbon Emission ³	12.0 µg/g	12.0 µg/g	VDA 277

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



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