

MAGNUM™ 3904 ABS Resin

Overview

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MAGNUM™ 3904 is a medium heat ABS. Its very high impact properties make it suitable for main interior automotive applications. MAGNUM™ 3904 is available in Europe and China, locally produced in major car production regions. Due to its excellent extrusion capabilities, this product is also used for large thermoformed parts, for Truck and Bus applications.

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
- Contains low amounts of gels providing for excellent thermoformability with low levels of scrap

Applications:

- Main interior automotive applications requiring high impact
- Various interior trims, under the beltline
- Large sized applications in commercial transportation

Complies with:

U.S. FDA FCN 1525

Automotive Specifications

- BMW GS 93016
- GM GMW15572P-ABS-T1
- GM QK 002022 Color: Natural
- MERCEDES BENZ DBL 5404.03
- MERCEDES BENZ DBL 5404.81
- VAG VW-TL 527

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm ³	1.05 g/cm ³	ISO 1183
Apparent (Bulk) Density	0.65 g/cm ³	0.65 g/cm ³	ISO 60
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	4.5 g/10 min	4.5 g/10 min	ISO 1133
Molding Shrinkage	4.0E-3 to 7.0E-3 in/in	0.40 to 0.70 %	ISO 294-4
VOC Content	20.0 µg/g	20.0 µg/g	VDA 277
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	264000 psi	1820 MPa	ISO 527-1/1
Tensile Stress (Yield)	5660 psi	39.0 MPa	ISO 527-2/50
Tensile Strain (Yield)	3.6 %	3.6 %	ISO 527-2/50
Flexural Modulus ¹	310000 psi	2140 MPa	ISO 178
Flexural Stress ¹	8410 psi	58.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
73°F (23°C), Injection Molded	18 ft-lb/in ²	37 kJ/m ²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ISO 75-2/A
264 psi (1.8 MPa), Annealed	207 °F	97.0 °C	
Vicat Softening Temperature	207 °F	97.0 °C	ISO 306/B50
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ² (0.06 in (1.5 mm))	HB	HB	UL 94

Additional Information

Mass balance versions (bio-based (BIO) or chemically recycled (CR)) of this product are chemically and physically indistinguishable to the standard fossil grade. This technical data sheet applies to all versions. Letters of sameness are available upon request.

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 to 194 °F	80 to 90 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr

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

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