

MAGNUM™ 3904X ABS Resin

Overview

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MAGNUM™ 3904X is an improved version of MAGNUM™ 3904 with a 15% increase in Charpy Impact resistance. MAGNUM™ 3904X is a medium heat ABS. Its very high impact properties make it suitable for main interior automotive applications. MAGNUM™ 3904X is available in Europe. 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:

- Various interior trims, under the belt line
- Large sized applications in commercial transportation

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)	5370 psi	37.0 MPa	ISO 527-2/50
Tensile Strain (Yield)	2.6 %	2.6 %	ISO 527-2/50
Flexural Modulus ¹	276000 psi	1900 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 73°F (23°C), Injection Molded	20 ft-lb/in ²	42 kJ/m ²	ISO 179/1eA
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Annealed	207 °F	97.0 °C	ISO 75-2/A
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