Technical Information

TRINSEO™

MAGNUM™ 3616
ABS Resin

Overview

Overview:
MAGNUM™ 3616 is a high-heat ABS. Its high impact properties make it suitable for main interior automotive applications requiring ductility at ambient temperature and is used in head-impact areas, e.g. for mid-consoles.

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:
- Main interior automotive applications
- Mid-consoles
- Door panels
- Door handles
- Pillars

Automotive Specifications
- BMW GS 93016
- DAIMLER DBL 5404.79
- FORD WSS-M4D906-B2
- GM GMW15572P-ABS-T2 Color: Natural
- VAG VW-TL 527 A
- VAG VW-TL 527 B

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.05	g/cm³	1.05	g/cm³	ISO 1183
Apparent (Bulk) Density	0.65	g/cm³	0.65	g/cm³	ISO 60
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	5.5	g/10 min	5.5	g/10 min	ISO 1133
Molding Shrinkage	4.0E-3 to 7.0E-3	in/in	0.40 to 0.70	%	ISO 294-4
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus	290000	psi	2000	MPa	ISO 527-1/1
Tensile Stress (Yield)	5510	psi	38.0	MPa	ISO 527-2/50
Tensile Strain					ISO 527-2/50
Yield	2.8	%	2.8	%	
Break	50	%	50	%	
Flexural Modulus [1]	290000	psi	2000	MPa	ISO 178
Flexural Stress [1]	8990	psi	62.0	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	8.6	ft·lb/in²	18	kJ/m²	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load					ISO 75-2/A
264 psi (1.8 MPa), Unannealed	174	°F	79.0	°C	
Vicat Softening Temperature	225	°F	107	°C	ISO 306/B50
Flammability	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Carbon Emission [2]	20.0	µg/g	20.0	µg/g	VDA 277

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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