TRINSEO™

MAGNUM™ 3416 SC
ABS Resin

Overview

Overview:

MAGNUM™ 3416SC is the reference high-heat ABS in the automotive industry. It is universally suitable for all interior and exterior applications.

It is approved at all major OEMs. MAGNUM™ 3416SC is globally available, locally produced in major car production regions.

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 and exterior automotive applications
- Mid-consoles
- Door panels
- Door handles
- Pillars

Automotive Specifications

- BMW GS 93016 Color: Natural
- FORD WSS-M4D690-B1
- JLR STJLR.51.353
- JLR STJLR.51.5262 Color: Natural
- PSA Peugeot-Citroën ABS-0021
- VAG VW-TL 527 A
- DAIMLER DBL 5404.04
- GM GMW15572P-ABS-T2 Color: Natural
- JLR STJLR.51.5229
- PSA Peugeot-Citroën ABS-0019
- RNPO AS32-1
- 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)	6.5	g/10 min	6.5	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	319000	psi	2200	MPa	ISO 527-2
Tensile Stress (Yield)	6240	psi	43.0	MPa	ISO 527-2
Tensile Strain (Yield)	3.1	%	3.1	%	ISO 527-2
Flexural Modulus [1]	319000	psi	2200	MPa	ISO 178
Flexural Stress [1]	11000	psi	76.0	MPa	ISO 178
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Charpy Notched Impact Strength					ISO 179/1eA
-22°F (-30°C)	5.7	ft·lb/in²	12	kJ/m²	
73°F (23°C)	8.1	ft·lb/in²	17	kJ/m²	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Heat Deflection Temperature					ISO 75-2/A
264 psi (1.8 MPa), Unannealed	185	°F	85.0	°C	
264 psi (1.8 MPa), Annealed	212	°F	100	°C	
Vicat Softening Temperature	226	°F	108	°C	ISO 306/B50

Flammability	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Burning Rate [2] (0.0787 in (2.00 mm))	2.2	in/min	55	mm/min	ISO 3795
Flame Rating [2]					UL 94
0.06 in (1.5 mm)	HB		HB		
0.12 in (3.0 mm)	HB		HB		
Carbon Emission	10.0	µg/g	10.0	µg/g	VDA 277
Fogging	99	%	99	%	ISO 6452

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