TRINSEO™

MAGNUM™ 3416SC
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
- GM GMW15572P-ABS-T2 Color: Natural
- JLR STJLR.51.5229
- MERCEDES BENZ DBL 5404.04
- RNPO AS32-1
- STELLANTIS ABS-0021
- STELLANTIS MS-DB-191 CPN 2744
- STELLANTIS MS-DB-191 CPN 3826
- VAG VW-TL 527 B
- FORD WSS-M4D690-B1
- JLR STJLR.51.353
- JLR STJLR.51.5262 Color: Natural
- MERCEDES BENZ DBL 5404.82
- STELLANTIS ABS-0019
- STELLANTIS MS-DB-191 CPN 1734
- STELLANTIS MS-DB-191 CPN 3178
- VAG VW-TL 527 A

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)					ISO 1133
220°C/10.0 kg	6.5	g/10 min	6.5	g/10 min	
230°C/3.8 kg	2.3	g/10 min	2.3	g/10 min	
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	305000	psi	2100	MPa	ISO 527-1/1
Tensile Stress (Yield)	6240	psi	43.0	MPa	ISO 527-2/50
Tensile Strain					ISO 527-2/50
Yield	3.0	%	3.0	%	
Break	30	%	30	%	
Flexural Modulus [1]	305000	psi	2100	MPa	ISO 178
Flexural Stress [1]	9720	psi	67.0	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	6.7	ft·lb/in²	14	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	181	°F	83.0	°C	
Vicat Softening Temperature	226	°F	108	°C	ISO 306/B50

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating [2]			UL 94
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	

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

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