MAGNUM™ 3325 MT
ABS Resin

Overview

Overview:

MAGNUM 3325MT is a medium heat ABS. Its inherent low gloss combined with a high flow makes it specifically suitable for unpainted interior automotive applications. MAGNUM 3325MT can thereby help you to save up to 50% of the part costs. It 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
- High scratch and mar resistance for an improved aesthetic durability of the parts
- Easier recyclability of unpainted part

Applications:

- Matt/unpainted interior automotive applications
- Mid-consoles
- Pillars
- Door liners
- Glove boxes

Automotive Specifications

- CHRYSLER MS-DB-191 Type A CPN1497 Color: Black
- FORD ESB-M4D483-A2
- FORD WSS-M4D483-C1
- GM GMP.ABS.003
- CHRYSLER MS-DB-191 Type A CPN1734 Color: Color Match
- FORD WSK-M4D827-A
- FORD WSS-M4D827-C1
- GM GMW15572P-ABS-T2 Color: Natural

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density					
--	1.04	g/cm³	1.04	g/cm³	ASTM D792
--	1.05	g/cm³	1.05	g/cm³	ISO 1183/B
Apparent (Bulk) Density	0.65	g/cm³	0.65	g/cm³	ISO 60
Melt Mass-Flow Rate (MFR)					
230°C/3.8 kg	2.5	g/10 min	2.5	g/10 min	ASTM D1238
220°C/10.0 kg	10	g/10 min	10	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	0.671	in³/10min	11.0	cm³/10min	ISO 1133
Molding Shrinkage					
Flow	4.0E-3 to 7.0E-3	in/in	0.40 to 0.70	%	ASTM D955
--	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					
-- [1]	300000	psi	2070	MPa	ASTM D638
0.126 in (3.20 mm), Injection Molded	319000	psi	2200	MPa	ISO 527-2
Tensile Strength					
Yield [1]	6130	psi	42.3	MPa	ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	6240	psi	43.0	MPa	ISO 527-2/50
Tensile Strain					
Yield, 0.126 in (3.20 mm), Injection Molded	3.3	%	3.3	%	ISO 527-2/50
Break [1]	25	%	25	%	ASTM D638

Mechanical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Flexural Modulus					
-- [2]	320000	psi	2210	MPa	ASTM D790
0.126 in (3.20 mm), Injection Molded [3, 4]	305000	psi	2100	MPa	ISO 178
Flexural Strength					
-- [2]	9350	psi	64.5	MPa	ASTM D790
0.126 in (3.20 mm), Injection Molded [3, 4]	9430	psi	65.0	MPa	ISO 178
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Charpy Notched Impact Strength					
-22°F (-30°C), Compression Molded	3.8	ft·lb/in²	8.0	kJ/m²	ISO 179/2
-22°F (-30°C), Injection Molded	5.2	ft·lb/in²	11	kJ/m²	ISO 179/1eA
73°F (23°C), Injection Molded	8.1	ft·lb/in²	17	kJ/m²	ISO 179/1eA
73°F (23°C), Compression Molded	5.7	ft·lb/in²	12	kJ/m²	ISO 179/2
Notched Izod Impact					
73°F (23°C), 0.126 in (3.20 mm) [5]	5.8	ft·lb/in	310	J/m	ASTM D256
-22°F (-30°C)	4.8	ft·lb/in²	10	kJ/m²	ISO 180/1A
73°F (23°C)	8.1	ft·lb/in²	17	kJ/m²	ISO 180/1A
Instrumented Dart Impact [6]					ASTM D3763
-20°F (-29°C), 0.126 in (3.20 mm), Peak Energy	281	in·lb	31.7	J	
-20°F (-29°C), 0.126 in (3.20 mm), Total Energy	304	in·lb	34.3	J	
73°F (23°C), 0.126 in (3.20 mm), Peak Energy	275	in·lb	31.1	J	
73°F (23°C), 0.126 in (3.20 mm), Total Energy	402	in·lb	45.4	J	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load					
66 psi (0.45 MPa), Unannealed, 0.126 in (3.20 mm)	205	°F	96.1	°C	ASTM D648
264 psi (1.8 MPa), Unannealed, 0.126 in (3.20 mm)	181	°F	82.8	°C	ASTM D648
264 psi (1.8 MPa), Annealed	214	°F	101	°C	ISO 75-2/A
Vicat Softening Temperature					
--	227	°F	108	°C	ASTM D1525
--	216	°F	102	°C	ISO 306/B50
CLTE - Flow	5.2E-5	in/in/°F	9.4E-5	cm/cm/°C	ASTM D696
Flammability	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Burning Rate [7] (0.0787 in (2.00 mm))	2.4	in/min	60	mm/min	ISO 3795
Flame Rating [7]					UL 94
0.06 in (1.5 mm)	HB		HB		
0.12 in (3.0 mm)	HB		HB		
Carbon Emission [7]	20.0	µg/g	20.0	µg/g	VDA 277
Fogging [7] (212°F (100°C))	98	%	98	%	ISO 6452