MAGNUM™ 375 HH
ABS Resin

Overview

High Heat, Low Gloss, Medium Impact ABS resin for injection molding

Applications:
- Automotive interior trim applications requiring low volatile organic compounds (VOC).

Automotive Specifications
- CHRYSLER MS-DB-191
- CHRYSLER MS-DB-300
- VAG VW-TL 527
- VAG VW-TL 527 A
- VAG VW-TL 527 B

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.06	g/cm³	1.06	g/cm³	ASTM D792 ISO 1183/B
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	2.1	g/10 min	2.1	g/10 min	ASTM D1238
Molding Shrinkage					ASTM D955
Flow	5.7E-3	in/in	0.57	%	
Across Flow	5.6E-3	in/in	0.56	%	
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus					
-- [1]	334000	psi	2300	MPa	ASTM D638
--	338000	psi	2330	MPa	ISO 527-2/50
Tensile Strength					
Yield [1]	7100	psi	49.0	MPa	ASTM D638
Yield	6820	psi	47.0	MPa	ISO 527-2/50
Tensile Elongation					
Yield [1]	3.1	%	3.1	%	ASTM D638
Yield	2.9	%	2.9	%	ISO 527-2/50
Break [1]	8.8	%	8.8	%	ASTM D638
Break	3.5	%	3.5	%	ISO 527-2/50
Flexural Modulus					
-- [2]	349000	psi	2410	MPa	ASTM D790
-- [3, 4]	334000	psi	2300	MPa	ISO 178
Flexural Strength					
-- [2]	11100	psi	76.5	MPa	ASTM D790
-- [3, 4]	10400	psi	71.7	MPa	ISO 178
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Charpy Notched Impact Strength					ISO 179/1eA
-22°F (-30°C)	5.2	ft·lb/in²	11	kJ/m²	
73°F (23°C)	10	ft·lb/in²	22	kJ/m²	
Notched Izod Impact					
-22°F (-30°C)	2.5	ft·lb/in	130	J/m	ASTM D256
73°F (23°C)	4.1	ft·lb/in	220	J/m	ASTM D256
-22°F (-30°C)	4.8	ft·lb/in²	10	kJ/m²	ISO 180/A
73°F (23°C)	7.6	ft·lb/in²	16	kJ/m²	ISO 180/A
Instrumented Dart Impact					ASTM D3763
-22°F (-30°C), Peak Energy	204	in·lb	23.0	J	
73°F (23°C), Peak Energy	266	in·lb	30.1	J	

Thermal	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Deflection Temperature Under Load					
66 psi (0.45 MPa), Unannealed	211	°F	99.4	°C	ASTM D648
66 psi (0.45 MPa), Unannealed	208	°F	98.0	°C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	179	°F	81.7	°C	ASTM D648
264 psi (1.8 MPa), Unannealed	183	°F	84.0	°C	ISO 75-2/A
Vicat Softening Temperature	221	°F	105	°C	ISO 306/B50 ASTM D1525 [5]
CLTE					ASTM E831
Flow : -40 to 212°F (-40 to 100°C)	4.3E-5	in/in/°F	7.7E-5	cm/cm/°C	
Transverse : -40 to 212°F (-40 to 100°C)	5.3E-5	in/in/°F	9.5E-5	cm/cm/°C	

Flammability	Nominal Value	(English)	Nominal Value	(SI)	Test Method
FMVSS Flammability [6]	1.2	in/min	30	mm/min	FMVSS 302

Injection	Nominal Value	(English)	Nominal Value	(SI)
Drying Temperature	180 to 185	°F	82 to 85	°C
Drying Time	3.0 to 4.0	hr	3.0 to 4.0	hr
Rear Temperature	460	°F	238	°C
Middle Temperature	480	°F	249	°C
Front Temperature	489	°F	254	°C
Nozzle Temperature	480 to 489	°F	249 to 254	°C
Processing (Melt) Temp	469 to 520	°F	243 to 271	°C
Mold Temperature	100 to 151	°F	38 to 66	°C

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

[1] 2.0 in/min (51 mm/min)

[2] Method I (3 point load), 0.079 in/min (2.0 mm/min)

[3] 0.079 in/min (2.0 mm/min)

[4] 3-points

[5] Rate A (50°C/h), Loading 2 (50 N)

[6] This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.

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