MAGNUM™ 1150 EM

ABS Resin

Trinseo

Message:

MAGNUM™ ABS resins are thermoplastic materials which provide an excellent balance of processability, impact resistance and heat resistance as imparted by the various polymer compositions. MAGNUM ABS resin are available in a wide range of melt flow rates, impact strength and heat resistance for both high and low gloss applications manufactured by injection molding, sheet or profile extrusion and thermoforming processes.
The automotive grades of MAGNUM ABS resins offer a wide range of gloss, viscosities, impact strength and heat properties for use in numerous automotive applications. Melt flow rates from 1 to 12 g/10 min, impact strengths from 2.5 to 12 ft-lb/in and heat distortion temperatures from 165 to 190 degrees F are available. Available primarily as natural plus concentrates, MAGNUM ABS resins are used in a wide variety of automotive applications including structural instrument panels, consoles, pillars and exterior trim parts requiring painting and plating.
Within the MAGNUM ABS product line, MAGNUM 1150 EM ABS resin is a high impact, medium heat, low gloss resin. MAGNUM 1150 EM has improved low temperature impact strength over standard grades of ABS. MAGNUM 1150 EM is used in applications like pillars and instrument panel trim.

General Information	
Features	Gloss, low Impact resistance, high Workability, good Low temperature impact resistance Heat resistance, medium
Uses	Components Application in Automobile Field
Forms	Particle
Processing Method	Sheet extrusion molding Thermoforming Profile extrusion molding Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.03	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	0.90	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.60 - 0.70	%	ASTM D955
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [1] (3.20 mm)	1750	MPa	ASTM D638
Tensile Strength [2] (Yield, 3.20 mm)	36.5	MPa	ASTM D638
Tensile Elongation [3]			ASTM D638
Yield, 3.20mm	3.0	%	ASTM D638
Fracture, 3.20mm	30	%	ASTM D638
Flexural Modulus [4] (3.20 mm)	1980	MPa	ASTM D790
Flexural Strength [5] (3.20 mm)	58.9	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**

Notched Izod Impact			ASTM D256
-29°C, 3.20 mm	340	J/m	ASTM D256
23°C, 3.20 mm	560	J/m	ASTM D256
Instrumented Dart Impact [6]			ASTM D3763
-29°C, 3.20mm, peak energy	32.8	J	ASTM D3763
-29°C, 3.20mm, total energy	42.9	J	ASTM D3763
23°C, 3.20mm, peak energy	29.9	J	ASTM D3763
23°C, 3.20mm, total energy	45.2	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.20mm	96.1	°C	ASTM D648
0.45 MPa, annealed, 3.20mm	111	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	82.2	°C	ASTM D648
1.8 MPa, annealed, 3.20mm	108	°C	ASTM D648
Vicat Softening Temperature	112	°C	ASTM D1525
CLTE - Flow (3.20 mm)	9.5E-5	cm/cm/°C	ASTM D696
Injection	**Nominal Value**	**Unit**	
Drying Temperature	82.2	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.10	%	
Processing (Melt) Temp	218 - 274	°C	
Mold Temperature	26.7 - 60.0	°C	
Back Pressure	1.03 - 3.45	MPa	
Clamp Tonnage	2.8 - 6.9	kN/cm^2	
Screw L/D Ratio	20.0:1.0		
Screw Compression Ratio	1.5:1.0 to 3.5:1.0		

Injection instructions
有些应用,例如电镀,可能需要低至 0.05% 的潮湿度.

NOTE	
1.	51 mm/min
2.	51 mm/min
3.	51 mm/min
4.	5.1 mm/min
5.	5.1 mm/min
6.	6.71 m/sec

Recommended distributors for this material

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