



MAGNUM™ 8434

Trinseo - ABS Resin

Sunday, November 3, 2019

General Information

Product Description

Overview:

MAGNUM™ 8434 is a medium heat ABS. It is suitable for interior automotive applications requiring high gloss.

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:

- Various interior trims
- [TBD]

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Features	• Good Processability	• High Gloss	• High Heat Resistance
Uses	• Appliances • Automotive Applications	• Automotive Interior Parts • Toys	
Automotive Specifications	• FORD WSS-M4D827-A3 Color: Natural	• GM QK 002022 Color: Natural	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.05	g/cm ³	ISO 1183/B
Density	0.0379	lb/in ³	ISO 1183 ²
Apparent (Bulk) Density	0.65	g/cm ³	ISO 60
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	13	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	13	cm ³ /10min	ISO 1133
Melt volume-flow rate (220°C/10.0 kg)	13	cm ³ /10min	ISO 1133 ²
Molding Shrinkage - Flow	0.40 to 0.70	%	ISO 294-4
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (0.126 in, Injection Molded)	305000	psi	ISO 527-2
Tensile modulus	319000	psi	ISO 527-2 ²
Tensile Stress			
Yield, 0.126 in, Injection Molded	6820	psi	ISO 527-2/50
Yield, 0.126 in, Injection Molded	6960	psi	ISO 527-2/100
Tensile Stress (Yield)	6530	psi	ISO 527-2 ²
Tensile Strain			
Yield, 0.126 in, Injection Molded	2.7	%	ISO 527-2/50
Yield, 0.126 in, Injection Molded	2.7	%	ISO 527-2/100

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Mechanical	Nominal Value	Unit	Test Method
Nominal strain at break	25	%	ISO 527-2 ²
Flexural Modulus ^{3,4} (0.126 in, Injection Molded)	305000	psi	ISO 178
Flexural Stress ^{3,4} (0.126 in, Injection Molded)	9430	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			
-22°F, Injection Molded	4.8	ft·lb/in ²	ISO 179/1eA
-22°F, Injection Molded	3.3	ft·lb/in ²	ISO 179/2C
73°F, Injection Molded	5.7	ft·lb/in ²	ISO 179/2C
73°F, Injection Molded	9.0	ft·lb/in ²	ISO 179/1eA
Charpy impact strength (73°F)	No Break		ISO 179/1eU ²
Charpy impact strength (-22°F)	No Break		ISO 179/1eU ²
Notched Izod Impact Strength			ISO 180/A
-22°F, Injection Molded	4.3	ft·lb/in ²	
73°F, Injection Molded	10	ft·lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Annealed)	216	°F	ISO 75-2/A
Deflection Temperature Under Load (264 psi)	216	°F	ISO 75-2 ²
Vicat Softening Temperature	214	°F	ISO 306/B50
Vicat Softening Temperature (50°C/h, B (50N))	212	°F	ISO 306 ²
Electrical	Nominal Value	Unit	Test Method
Volume resistivity	> 3.9E+14	ohms·in	IEC 60093 ²
Flammability	Nominal Value	Unit	Test Method
Burning Rate ⁵ (0.0787 in)	1.8	in/min	ISO 3795
Flame Rating ⁵			UL 94
0.06 in	HB		
0.12 in	HB		
Burning Behav. at 1.6mm nom. thickn. (0.06 in, UL)	HB		ISO 1210 ²
Carbon Emission ⁵	12.0	µg/g	VDA 277

Notes

¹ Typical properties: these are not to be construed as specifications.

² Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

³ 0.079 in/min

⁴ 3-points

⁵ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.