

MAGNUM™ 3404

ABS Resin

Trinseo

Message:

MAGNUM™ 3404 is an excellent general purpose extrusion / thermoforming resin with outstanding processability. It combines medium impact with medium-high heat performance. The mass (continuous process) ABS technology ensures an ABS resin that combines excellent processability with a stable light base colour that is ideal for self-colouring.

Applications:

Medium impact monosheet

Co-extruded sheets

General Information			
UL YellowCard	E162447-238261	E73656-249569	
Features	Good Processability		
	High Heat Resistance		
	Medium Impact Resistance		
Uses	General Purpose		
	Sheet		
Forms	Pellets		
Processing Method	Coextrusion		
	Extrusion		
	Injection Molding		
	Sheet Extrusion		
	Thermoforming		
Physical	Nominal Value	Unit	Test Method
Density			
--	1.05	g/cm ³	ISO 1183/B
--	1050	kg/m ³	ISO 1183 ¹
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	6.6	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	6.70	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow	0.40 to 0.70	%	ISO 294-4
Water Absorption			ISO 62 ²
Saturation	0.50	%	
Equilibrium	0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
3.20 mm, Injection Molded	2150	MPa	ISO 527-2

--	2150	MPa	ISO 527-2 ³
Tensile Stress			
Yield, 3.20 mm, Injection Molded	43.0	MPa	ISO 527-2/50
Yield	43.0	MPa	ISO 527-2 ⁴
Tensile Strain (Yield, 3.20 mm, Injection Molded)	2.7	%	ISO 527-2/50
Nominal strain at break	40	%	ISO 527-2 ⁵
Flexural Modulus (3.20 mm, Injection Molded)	2100	MPa	ISO 178
Flexural Stress (3.20 mm, Injection Molded)	70.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			
-30°C, Injection Molded	8.0	kJ/m ²	ISO 179/2C
-30°C, Injection Molded	13	kJ/m ²	ISO 179/1eA
23°C, Injection Molded	18	kJ/m ²	ISO 179/1eA
23°C, Injection Molded	13	kJ/m ²	ISO 179/2C
Charpy impact strength			ISO 179/1eU ⁶
-30°C	No Break		
23°C	No Break		
Notched Izod Impact Strength			ISO 180/A
-30°C, Injection Molded	11	kJ/m ²	
23°C, Injection Molded	19	kJ/m ²	
Tensile notched impact strength (23°C)	68.0	kJ/m ²	ISO 8256/1 ⁷
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa	104	°C	ISO 75-2 ⁸
1.8 MPa, Annealed	101	°C	ISO 75-2/A
1.8 MPa	101	°C	ISO 75-2 ⁹
Vicat Softening Temperature	102	°C	ISO 306/B50
CLTE			ISO 11359-2 ¹⁰
Flow	7.0E-5	cm/cm/°C	
Transverse	6.5E-5	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Volume resistivity	> 1.0E+13	ohms · m	IEC 60093 ¹¹
Relative Permittivity			IEC 60250 ¹²
100 Hz	2.80		
1 MHz	2.80		
Dissipation Factor			IEC 60250 ¹³
100 Hz	6.0E-3		
1 MHz	6.0E-3		
Flammability	Nominal Value	Unit	Test Method
Burning Rate ¹⁴ (2.00 mm)	50	mm/min	ISO 3795
Flame Rating ¹⁵			UL 94

1.50 mm	HB	
3.00 mm	HB	
Burning Behav. at 1.6mm nom. thickn. (1.50 mm, UL)	HB	ISO 1210 ¹⁶
NOTE		
1.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.	
2.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.	
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4.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.	
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10.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.	
11.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.	
12.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.	
13.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.	
14.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.	
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16.

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10350. 23°C/50%r.h. unless
otherwise noted.

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