ASTALON™ H3000R

Polycarbonate

Marplex Australia Pty. Ltd.

Message:

ASTALON™ H3000R / H3001R / H3003R are the low viscosity (ultra high melt flow) grades in the ASTALON™ range and are well suited to intricate or "difficult to fill" injection moulding applications which require a mould release agent (R). Offering an excellent balance of transparency, toughness, heat resistance, flame retardancy and processability, typical applications include drinking tumblers, food processors and other kitchen appliances and domestic serving trays.

Note: [Standard grade = H3000R] / [FDA approved = H3001R] / [Steam resistant = H3003R].

Features Flame Retardant Good Processability Good Toughness High Flow Low Viscosity Medium Clarity Medium Heat Resistance Uses Appliances Non-specific Food Applications Processing Method Injection Molding Physical Nominal Value Unit Test Method Specific Gravity 1.20 Melt Mass-Flow Rate (MFR) (300°C/1.2 kg) 28 Molding Shrinkage - Flow (3.00 mm) 0.60 % ASTM D792 Melt Mass-Flow Rate (MFR) (300°C/1.2 kg) Water Absorption (24 hr) 0.24 Merchances Nominal Value Unit Test Method Nockwell Hardness (R-Scale) 123 Water Absorption (24 hr) 124 When ASTM D785 Mechanical Nominal Value Unit Test Method Rockwell Hardness (R-Scale) 123 Water Absorption (26 mm) 6.0 When ASTM D785 Mechanical Nominal Value Unit Test Method Test Method Rockwell Hardness (R-Scale) 123 ASTM D785 Mechanical Nominal Value Unit Test Method Pressile Stongation (2 Greak, 3.20 mm) 100 % ASTM D638 Ternsile Stongation (2 Greak, 3.20 mm) 100 % ASTM D638 Flexural Modulus (3 (6.40 mm) 2300 MPa ASTM D638 Flexural Modulus (4.40 mm) 87.0 Mipa ASTM D790 Impact Nominal Value Unit Test Method Notched Izod Impact (3.20 mm) 65.0 J/m ASTM D256 Gardner Impact (3.20 mm) 65.0 J/m ASTM D3029 Thermal	General Information			
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Thermal Nominal Value Unit Test Method	Notched Izod Impact (3.20 mm)	250	J/m	ASTM D256
	Gardner Impact (3.20 mm)	65.0	J	ASTM D3029
Deflection Temperature Under Load ASTM D648	Thermal	Nominal Value	Unit	Test Method
	Deflection Temperature Under Load			ASTM D648

0.45 MPa, Unannealed, 6.40 mm	132	°C	
1.8 MPa, Unannealed, 6.40 mm	128	°C	
CLTE - Flow	6.5E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	2.1E+16	ohms·cm	ASTM D257
Dielectric Constant	2.85		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.60 mm)	V-2		UL 94
Optical	Nominal Value	Unit	Test Method
Transmittance (Total, 3000 μm)	85.0	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	120 to 125	°C	
Drying Time	4.0 to 6.0	hr	
Rear Temperature	230 to 245	°C	
Middle Temperature	240 to 255	°C	
Front Temperature	250 to 265	°C	
Processing (Melt) Temp	240 to 270	°C	
Mold Temperature	60.0 to 110	°C	
Injection Pressure	60.0 to 140	MPa	
Injection Rate	Moderate		
Back Pressure	0.100 to 0.500	MPa	
Screw Speed	40 to 60	rpm	
Clamp Tonnage	4.0 to 8.0	kN/cm²	
NOTE			
1.	20 mm/min		
2.	20 mm/min		
3.	2.8 mm/min		
4.	2.8 mm/min		

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