ASTALON™ S2000R

Polycarbonate

Marplex Australia Pty. Ltd.

Message:

ASTALON[™] S2000R / S2001R / S2003R are the standard medium viscosity (medium melt flow) grades in the ASTALON[™] range and are suited to general purpose injection moulding applications which require a mould release agent (R). Offering an exceptional combination of transparency, toughness, heat resistance, flame retardancy and processability, typical applications include computer and electrical appliances, water bottles, filter housings and automotive heater fans.

Note: [Standard grade = S2000R] / [FDA approved = S2001R] / [Steam resistant = S2003R].

General Information				
Additive	Mold Release			
Features	Flame Retardant			
	General Purpose			
	Good Processability			
	Good Toughness			
	Medium Clarity			
	Medium Flow			
	Medium Heat Resistance			
	Medium Viscosity			
Uses	Appliances			
	Automotive Applications			
	Bottles			
	Computer Components			
	Electrical/Electronic Applications			
	General Purpose			
	Housings			
Processing Method	Injection Molding			
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	1.20	g/cm³	ASTM D792	
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	12	g/10 min	ASTM D1238	
Molding Shrinkage - Flow (3.00 mm)	0.60	%	ASTM D955	
Water Absorption (24 hr)	0.24	%	ASTM D570	
Hardness	Nominal Value	Unit	Test Method	
Rockwell Hardness (R-Scale)	123		ASTM D785	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Strength ¹ (3.20 mm)	64.0	MPa	ASTM D638	
Tensile Elongation ² (Break, 3.20 mm)	120	%	ASTM D638	
Flexural Modulus ³ (6.40 mm)	2350	MPa	ASTM D790	

Flexural Strength ⁴ (6.40 mm)	89.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.20 mm)	880	J/m	ASTM D256
Gardner Impact (3.20 mm)	> 85.0	J	ASTM D3029
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 6.40 mm	153	°C	
1.8 MPa, Unannealed, 6.40 mm	138	°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	245 to 265	°C	
Middle Temperature	260 to 280	°C	
Front Temperature	275 to 295	°C	
Processing (Melt) Temp	270 to 300	°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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