

# ASTALON™ S3000RG

Polycarbonate  
Marplex Australia Pty. Ltd.

Message:

ASTALON™ S3000RG / S3001RG / S3003RG are the standard low/medium viscosity (high melt flow) grades in the ASTALON™ range and are designed to meet an exacting MFR tolerance for injection moulding applications which also require a mould release agent (R). Offering an exceptional combination of toughness, heat resistance, flame retardancy and easy processability, typical applications include electrical switch housings, push buttons and switch fascia panels.

Note: [ Standard = S3000RG ] / [ FDA grade = S3001RG ] / [ Steam resistant = S3003RG ].

General Information			
Additive	Mold Release		
Features	Flame Retardant		
	Good Processability		
	Good Toughness		
	High Flow		
	Low Viscosity		
	Medium Heat Resistance		
Uses	Electrical/Electronic Applications		
	Housings		
	Switches		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	18	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 <sup>1</sup> (3.20 mm)	63.0	MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break, 3.20 mm)	110	%	ASTM D638
Flexural Modulus <sup>3</sup> (6.40 mm)	2350	MPa	ASTM D790
Flexural Strength <sup>4</sup> (6.40 mm)	88.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.20 mm)	830	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	152	°C	
1.8 MPa, Unannealed, 6.40 mm	137	°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	235 to 265	°C	
Middle Temperature	250 to 270	°C	
Front Temperature	265 to 285	°C	
Processing (Melt) Temp	260 to 290	°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/cm <sup>2</sup>	
NOTE			
1.	20 mm/min		
2.	20 mm/min		
3.	2.8 mm/min		
4.	2.8 mm/min		

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