

# ASTALON™ S2000UR

Polycarbonate

Marplex Australia Pty. Ltd.



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## Technical Data

### Product Description

ASTALON™ S2000UR / S2001UR / S2003UR are the standard medium viscosity (medium melt flow) grades in the ASTALON™ range and are well suited to general purpose injection moulding applications which require a mould release agent (R) and UV stabilisation (U). Offering an exceptional combination of transparency, toughness, heat resistance, flame retardancy and processability, typical applications include automotive taillight housings and safety helmet visors.

Note: [ Standard grade = S2000UR ] / [ FDA approved = S2001UR ] / [ Steam resistant = S2003UR ].

### General

Material Status	• Commercial: Active		
Literature <sup>1</sup>	• <a href="#">Technical Datasheet (English)</a>		
Search for UL Yellow Card	• <a href="#">Marplex Australia Pty. Ltd.</a>		
Availability	• Asia Pacific	• North America	• South America
Additive	• Mold Release	• UV Stabilizer	
Features	• Flame Retardant	• Good Toughness	• Medium Heat Resistance
	• General Purpose	• Medium Clarity	• Medium Viscosity
	• Good Processability	• Medium Flow	
Uses	• Automotive Applications	• General Purpose	• Safety Equipment
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)	12 g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.00 mm)	0.40 to 0.80 %	ASTM D955
Water Absorption (24 hr)	0.24 %	ASTM D570
Mechanical	Nominal Value Unit	Test Method
Tensile Strength <sup>3</sup> (3.20 mm)	64.0 MPa	ASTM D638
Tensile Elongation <sup>3</sup> (Break, 3.20 mm)	120 %	ASTM D638
Flexural Modulus <sup>4</sup> (6.40 mm)	2350 MPa	ASTM D790
Flexural Strength <sup>4</sup> (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
Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (R-Scale)	123	ASTM D785
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	0.000060 to 0.000070 cm/cm/°C	ASTM D696
Electrical	Nominal Value Unit	Test Method
Volume Resistivity	2.1E+16 ohm·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	Test Method
Drying Temperature	120 to 125 °C	
Drying Time	4.0 to 6.0 hr	
Rear Temperature	245 to 265 °C	

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Injection	Nominal Value Unit
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/cm <sup>2</sup>

## Notes

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> Typical properties: these are not to be construed as specifications.

<sup>3</sup> 20 mm/min

<sup>4</sup> 2.8 mm/min

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**Marplex Australia Pty. Ltd.**

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## Where to Buy

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### Supplier

**Marplex Australia Pty. Ltd.**

Noble Park, Victoria Australia

Telephone: 800-627-987

Web: <http://www.marplex.com.au/>

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### Distributor

Please contact the supplier to find a distributor for ASTALON™ S2000UR



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