# ASTALON™ N5+

### Polycarbonate

Marplex Australia Pty. Ltd.

#### Message:

ASTALON<sup>M</sup> N5+ is a clear, flame retardant polycarbonate grade with standard medium viscosity (medium melt flow) in the ASTALON<sup>M</sup> range. It is designed to meet the stringent UL94 V-0 rating while still keeping very high clarity and many other features of polycarbonate. N5+ is suited to injection moulding applications which require a mould release agent. N5+ offers an exceptional combination of flame retardancy, transparency, toughness, heat resistance and processability, typical applications include computer and electrical appliances. Note: [Suffix "+" = R for mould release or "+" =UR for UV stabilised for improved weatherability]

General Information Additive Mold Release Flame Retardant Features **High Clarity** Medium Flow Medium Viscosity Uses Appliances **Computer Components** Electrical/Electronic Applications Clear/Transparent Appearance Processing Method Injection Molding Physical Nominal Value Unit Test Method Specific Gravity 1.27 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) 0.60 % ASTM D955 Hardness Nominal Value Unit Test Method Rockwell Hardness (R-Scale) 122 ASTM D785 Mechanical Nominal Value Unit Test Method Tensile Strength <sup>1</sup> (3.20 mm) 70.0 MPa ASTM D638 Tensile Elongation<sup>2</sup> (Break, 3.20 mm) 120 % ASTM D638 Flexural Modulus <sup>3</sup> (3.20 mm) 2550 MPa ASTM D790 Flexural Strength <sup>4</sup> (3.20 mm) 100 MPa ASTM D790 Nominal Value Unit Impact Test Method Notched Izod Impact (3.20 mm) 65 ASTM D256 J/m Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 °C MPa, Unannealed, 3.20 mm) 125 ASTM D648 **CLTE - Flow** 6.5E-5 cm/cm/°C ASTM D696 Electrical Nominal Value Unit Test Method Volume Resistivity 2.0E+16 ASTM D257 ohms·cm

Dielectric Constant <sup>5</sup>	27.0	pF/m	ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating (2.00 mm)	V-0		UL 94
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/cm <sup>2</sup>	
NOTE			
1.	20 mm/min		
2.	20 mm/min		
3.	2.8 mm/min		
4.	2.8 mm/min		
5.	1 MHz		

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