

ProteQ™

POLYPROPYLENE

ENGINEERING THERMOPLASTIC

ProteQ™ IS A REGISTERED TRADEMARK OF MARPLEX AUSTRALIA PTY. LTD.

PROTEQ™ 7008

PROTEQ™ 7008 is an impact modified polypropylene compound. This grade has been formulated to retain a high resistance to impact at low temperatures combined with good rigidity. The grade is also stabilised to withstand intermittent exposure to UV radiation.

	<u>CONDITIONS</u>	<u>UNITS</u>	<u>TYPICAL VALUES</u>	<u>TESTING METHODS</u>
<u>1. Mechanical Properties</u>				
Notched Izod Impact Strength	12.7 mm x 3.2 mm @ 23°C	J/m	600	ASTM D256
	12.7 mm x 3.2 mm @ -30°C	J/m	90	ASTM D256
Tensile Strength	12.7 mm x 3.2 mm @ 50 mm/min	MPa	22	ASTM D638
Flexural Modulus	12.7 mm x 3.2 mm @ 10 mm/min	MPa	1,000	ASTM D790
<u>2. Thermal Properties</u>				
Heat Deflection Temperature	12.7 mm x 3.2 mm @ 0.455 MPa	°C	90	ASTM D648
	12.7 mm x 3.2 mm @ 1.82 MPa	°C	52	ASTM D648
<u>4. Physical Properties</u>				
Melt Flow Rate	230°C, 2.16 kg	g/10 min	5	ASTM D1238
Specific Gravity		-	0.90	ASTM D792
Mould Shrinkage	2.0 - 3.0 mm	%	1.4 - 2.0	ASTM D955

All test results were obtained using uncoloured material.

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Material Safety Data Sheet (MSDS): Code 17957

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TYPICAL PROCESSING CONDITIONS

PROTEQ™ 7008

The following typical guidelines are offered as initial processing conditions for **PROTEQ™ 7008**. In practice, processing parameters may need to be varied to give commercially acceptable performance in conjunction with optimum physical properties. For specific technical advice on part design or processing conditions, contact the Marplex Technical Service Department.

Temperature of pellet bed in dehumidifying drier		85 - 90°C
Minimum drying time at desired pellet bed temp		2 - 4 hours
Mould temperature		30 - 70°C
Nozzle temperature		Do not exceed stock temperature
Melt temperature		220 - 260°C
Cylinder temperatures	Rear	180 - 240°C
	Middle	190 - 250°C
	Front	210 - 260°C
Fill speed		Medium
Screw speed		40 - 60 rpm
Screw back pressure		0.1 - 0.5 MPa
Injection pressure		60 - 140 MPa
Clamp pressure		3 - 6 kN/cm ²

Comment(s):

- 1 Cleanliness of the dryer, machine hopper and machine screw/barrel/nozzle assembly are essential for processing PROTEQ™ and producing contamination free moulded components.
- 2 PROTEQ™ is not compatible with other polymers.
- 3 It is suggested that the pre-drying, moulding die and material temperatures are manually confirmed using a hand held temperature measuring device.

Conversions:

- 1 MPa = 145 psi
- = 10.2 kg/cm²
- = 10 bar
- °C = 5(F-32)/9
- 1 kN/cm² = 0.65 ton/in²