

## RETPOL GRADE SUMMARY

### Flame Retardant Polypropylene

Typical Properties			Copolymer				Homopolymer	
			Unfilled		UV Stabilised	Mineral Filled	Unfilled	Mineral Filled
	ASTM Method	Unit	RETPOL 7120/2	RETPOL 9010	RETPOL PDR 9044 UVA	RETPOL 9014	RETPOL 9020	RETPOL 9028
Specific Gravity	D792		0.93	0.93	0.93	1.16	0.93	0.98
Melt Flow Index	D1238 230°/2.1 6 kg	g/10 min	3.5	5	28	54	10	12
Mould Shrinkage **		%	1.5 - 1.9	1.5 - 1.9	1.5 - 1.9	1.3 - 1.5	1.5 - 1.9	1.3 - 1.7
Tensile Strength	D638	MPa	24	27	22	19	35	33
Elongation at Break	D638	%	300	170	125	30	110	40
Flexural Modulus	D790	MPa	1120	1215	1115	1470	1500	1775
Izod Impact Strength								
- notched	D256	J/m	180	110	93	38	25	25
- unnotched	D256	J/m	NB	NB	NB	638	>600	>600
Heat Deflection Temp								
- 0.45 MPa	D648	°C	84	85	93	106	95	104
Glow-wire (2)	AS2420	°C	960	960	960	850	960	960
Flammability (1)								
@ 3 mm thickness	UL 94		V-2	V-2	V-2	V-2	V-2	V-2
@ 1.6 mm thickness	UL 94		V-2	V-2	V-2	V-2	V-2	V-2
Co-efficient of Linear Thermal Expansion	D696	10 <sup>-5</sup> per ° C	10	10	10	8	10	9

\*\* **Mould Shrinkage**

Figures quoted here are based on laboratory moulded test pieces. As many factors affect part shrinkage (eg thickness, moulding conditions, part configuration etc.) users should conduct their own tests to determine tooling figures.

- (1) Underwriters Laboratory test method - PolyPacific results. These figures alone do not assess the fire hazard of the material under actual fire conditions. Consequently, the results of this test alone shall not be quoted in support of claims with respect to fire hazard of (material or product) under actual fire conditions.
- (2) Australian Standard Test Method. For more detail on the above grades please refer to the individual Technical Bulletins.

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## **SAFETY ASPECTS**

### **HANDLING**

PolyPacific RETPOL compounds may generally be regarded as chemically unreactive with a low toxic hazard, either from skin contact or inhalation under normal conditions. The flame retardant additives used in these compounds can cause dermatitis, eye and respiratory irritation, and other reactions at high levels of exposure. Hence it is recommended that precautions should be taken when handling RETPOL compounds to avoid exposure particularly in situations where dust is generated. Contact with molten polymer should, of course, be avoided.

### **PROCESSING**

When compounds are heated during processing small amounts of fumes may be produced from decomposition or oxidation. Any hazards can be eliminated by ensuring adequate fume removal and hence all work areas must be properly ventilated.

### **FIRE PRECAUTIONS**

In common with most other organic polymers used in manufacture or construction, RETPOL compounds will burn. Significant quantities of fumes are generated above 250°C which may contain halogenated compounds and other toxic gases. The use of self contained breathing apparatus for fire fighting is recommended.

\* For further information individual Safety Data Sheets are available on request.

### **AVAILABILITY**

RETPOL is available in granule form packed in 25kg bags.

For further information you are invited to consult your local PolyPacific Sales Office.

<b>Postal Address:</b>	<b>P.O. Box 4191, Dandenong South, Victoria 3164, Australia</b>
<b>Registered Office:</b>	<b>114-126 Dandenong Valley Highway, Dandenong Victoria 3175, Australia</b>
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