TABLE 2
PHYSICAL PROPERTIES OF RIGID CELLULAR POLYSTYRENE—MOULDED (RC/PS—M)

Physical Property	Unit	Class						Test Method
		L	SL	S	M	H	VH	
Compressive stress at 10 per cent Deformation (min.)	kPa	50	70	85	105	135	165	AS 2498.3
Cross-breaking strength (min.)	kPa	95	135	165	200	260	320	AS 2498.4
Rate of water vapour transmission (max.) measured parallel to rise at 23°C	µg/m²s	710	630	580	250	460	400	AS 2498.5
Dimensional stability of length, Width, thickness (max.) at 70°C, dry conditions seven days	percent	1	1	1	1	1	1	AS 2498.6
Thermal resistance(min.) at a mean temperature of 25°C	m².K/W	1	1.13	1.17	1.2	1.25	1.28	AS 2464.5 or AS 2464.6
Flame propagation characteristics:								
median flame duration (max.)	s	2	2	2	2	2	2	
eighth value (max.)	s	3	3	3	3	3	3	AS 2122.1
median volume retained	percent	15	18	22	30	40	50	
eighth value (min.)	percent	12	15	19	27	37	47	

NOTES

1 In applications where sustained loads are carried, creep will occur in the material. The compressive stress values nominated in Table 2 do not take into account the incidence of creep. ISO 7850 provides a method of determining compressive creep. In applications where compressive creep is a consideration, it should be specified for the material selected and the manufacturer's guidance should sought when selecting suitable product.

2 Where moisture absorption properties are considered relevant to the intended use of the material, it should be tested to AS 2498.8 and an appropriate level agreed between purchaser and supplier.

3 Thermal resistance is measured on the thickness as supplied. The thermal resistance (R-value) of the thermal insulation boards will vary with thickness. R-value versus thickness is not necessarily a linear relationship. All low density insulation materials produce a non-linearity in thermal resistance with thickness; this variation is more apparent at thicknesses below 50mm, and results in thermal resistances which are higher than linearly interpolated calculations. These are for the purposes of the Standard and should not be used for calculations (see Appendix C).

11 DETERMINATION OF FLAME PROPAGATION When the rigid cellular polystyrene (RC/PS—M) is conditioned in accordance with AS 2498.1 and then subjected to the test for flame propagation characteristics specified in AS 2122.1, the results of the testing shall comply with Table 2.

These test results on their own do not indicate the fire hazard of extruded rigid cellular polystyrene-moulded (RC/PS—M) under actual fire conditions and, consequently, should not be applied to the assessment of fire hazard without taking into account additional supportive information.

NOTE: The conditioning specified in AS 2498.1 has the effect of purging the residual flammable blowing agent from the RC/PS—M.

12 MARKING The following information shall be legibly marked on the carton or package or bundle of the material supplied:

(a) Manufacturer's name or registered trademark
(b) Classification (see Clause 4).
(c) A colour stripe in accordance with Clause 5.
(d) One or other of the following manufacturer's statement:
  (i) Caution: Electric cables and equipment partially or completely surrounded with thermal insulation may overheat and fail. Read the instructions accompanying this pack.
  (ii) Caution: Electric cables and equipment partially or completely surrounded with thermal insulation may overheat and fail. Read the following instructions.

NOTE: Manufacturers making a statement of compliance with Australian Standard on a product, or on packaging or promotional material related to that product, are advised to ensure that such compliance is capable of being verified.

Independent certification is available from Standards Australia under the StandardsMark Product Certification Scheme. The StandardsMark, shown below, is a registered certification trademark owned by Standards Australia and granted under sound quality assurance programs to ensure consistent product quality.

Further information on product certification and the suitability of this Standard for certification is available from Standards Australia's Quality Assurance Services, 80 Arthur Street, North Sydney, N.S.W. 2060.