

General Description

VICUCLAD® is a non-combustible board in which the unique cellular structure of vermiculite is maintained and controlled by a pre-treatment process. This gives excellent thermal insulation properties with dimensional stability at high temperatures. It is used extensively for the fire protection of structural steel elements in buildings to provide up to 240 minutes fire protection. It may also be used to protect sheet metal ducts and for the construction of smoke extract ducts (VICUVENT®).

Available in two grades:

VICUCLAD® 900R –

Thicknesses from 18mm to 40mm suitable for up to 180 minutes fire resistance.

VICUCLAD® 1050R –

Thicknesses from 45mm to 80mm suitable for up to 240 minutes fire resistance.

This versatile material is also produced in semi-circular sections known as VICUTUBE®, which can be used to protect circular steel sections and plastic pipes.

VICUCASE® is a system in which VICUCLAD® is supplied within a pre-formed steel sheet casing to provide an attractive finish. This finish is available in a choice of colours and is suitable for beam and column protection.

VICUBOND® WR is a ready-to-use, one part non-combustible cement for fixing VICUCLAD® and VICUTUBE® boards. It may also be used for gap filling. Delivered in semi-liquid form in 10 litre drums. Allow 1 litre for each 1.5m² of 25mm VICUCLAD® board. See VICUTUBE® standard size and thickness on the relevant application page. Other thicknesses require a pro rata amount.

A health and safety data sheet is available from the Promat Technical Department and, as with any other materials, should be read before working with the board. The board is not classified as a dangerous substance so no special provisions are required regarding the carriage and the disposal of the product to landfill. They can be placed in an on-site skip with other general building waste which should then be disposed of by a registered contractor.



Applications

- Structural steel
- Ventilation and smoke extraction ducts
- Electrical and mechanical services enclosures
- Fire doors

Typical Mechanical Properties

Flexural strength, $F_{rupture}$ (BS EN 310: 1993)	N/mm ²	0.8
Compressive strength (average, perpendicular on board face) (BS5669: Part 1: 1989)	N/mm ²	0.95

General Technical Data

Product generic description		Vermiculite board			
Material class		Non-combustible to BS476: Part 4.			
Surface spread of flame		Class 1 to BS476: Part 7.			
Building regulations classification		Class 0			
Nominal density at EMC* (average)		kg/m ³	405		
Thermal conductivity (approximately) at 20°C (ASTM C518: 1991)		W/m ² K	0.16		
Coefficient of expansion		m/mk	16 x 10 ⁻⁶		
Length x width tolerance of standard boards		mm	- 0 + 10		
Surface condition		Smooth, oatmeal texture and colour.			

Thickness (mm)	Standard dimensions** (mm x mm)	Number of boards per pallet	Surface per pallet (m ² /pallet)	Weight per m ² of sheet, dry (approximately) (kg/m ²)	Weight per pallet (approximately) (kg)
18	1000 x 610	216	132	7.92	1045
20	1000 x 610	200	122	8.60	1049
25	1000 x 610	160	97	10.12	982
30	1000 x 610	132	80	11.85	949
35	1000 x 610	114	69	13.47	930
40	1000 x 610	96	58	15.00	870
45	1000 x 610	88	53	16.87	895
50	1000 x 610	80	48	18.25	876
55	1000 x 610	72	43	19.52	840
60	1000 x 610	64	39	21.00	819
65	1000 x 610	60	36	22.75	819
70	1000 x 610	56	34	24.50	833
75	1000 x 610	52	31	26.25	814
80	1000 x 610	48	29	28.00	812

*EMC: Equilibrium moisture content. **Other sizes are available upon request. The properties in above tables are mean values given for information and guidance only. If certain properties are critical for a particular application, it is advisable to consult your nearest Promat Technical Department. Please note, the density of VICUCLAD® decreases as the thickness of the board increases. The above figures are nominal weights for reference and guidance purposes only. Please consult the Promat Technical office for information concerning the specific weight of any particular thickness for any application.

VICUCLAD® is manufactured under a quality management system certified in accordance with ISO9001: 2000 Certification and in accordance with the environmental standards of ISO14001. For further technical information, please consult Promat.

GENERAL NOTE: WHEN MACHINING, AIRBORNE DUST MAY BE RELEASED. AVOID CONTACT WITH SKIN AND EYES. USE DUST EXTRACTION. RESPECT REGULATORY OCCUPATIONAL EXPOSURE LIMITS FOR TOTAL INHALABLE AND RESPIRABLE DUST. FOR MORE INFORMATION PLEASE CHECK THE MATERIAL SAFETY DATA SHEET APPLICABLE TO THIS PRODUCT, AVAILABLE UPON REQUEST.