

1. PRODUCT IDENTIFICATION

Product Name	EBuilt Verso VCL100 — Vapour Control Layer / Vapour Barrier
Other Names / Variants	Verso VCL100 HP Vapour Barrier Airtightness Membrane for Passive Homes
Product Code	VCL075
Place of Manufacture	Poland (Overseas)

Product Description and Intended Use

Verso VCL100 is a high-performance, vapour control layer (VCL) and airtightness membrane designed for the internal lining of walls, ceilings, and floors in passive homes and high-performance buildings. The product provides a high vapour resistance ($S_d \approx 100 \text{ m}$), effectively preventing moisture-laden internal air from diffusing into the building structure. It is also used as an airtightness layer to reduce uncontrolled air infiltration, contributing to blower-door test performance in certified passive builds.

Suitable for residential, commercial, and industrial buildings on timber-framed or steel-framed structures. Supplied in rolls of 75 m^2 ($1.5 \text{ m} \times 50 \text{ m}$). Mass: 170 g/m^2 . Thickness: 0.35 mm . Manufactured in Poland by mdm NT sp. z o.o.

2. MANUFACTURER & IMPORTER DETAILS

Manufacturer

Legal Name	mdm NT sp. z o.o.
Trading Name	mdm NT
Address	ul. Sosnowiecka 75, 31-345 Krakow, Poland
NZBN	N/A (Overseas manufacturer)
Website	www.mdm-nt.pl
Contact	Via importer — E Built NZ Limited

Importer / NZ Distributor

Legal Name	E Built NZ Limited
Trading Name	EBuilt
NZBN	9429045948282
Address	1B/89 Ellice Road, Wairau Valley, Auckland 0629, New Zealand
Website	www.ebuilt.co.nz
Email	orders@ebuilt.co.nz
Phone	09 916 6750

3. RELEVANT NEW ZEALAND BUILDING CODE CLAUSES

NZBC Clause	Subject	Application
B2	Durability	B2.3.1(b) 15-year durability; B2.3.2
E3	Internal Moisture	E3.3.1, E3.3.2 — vapour control layer limiting interstitial condensation in building fabric
F2	Hazardous Building Materials	F2.3.1 — product contains no hazardous materials
H1	Energy Efficiency	Contributes to airtightness performance of the thermal envelope (designer to assess H1 compliance for specific design)

Supporting Standards & Technical Documents

Document	Description
NZS 3604:2011	Timber-framed Buildings
NZBC Acceptable Solution E3/AS1	Internal Moisture — vapour control in buildings
BRANZ Publication BU 585	Vapour control layers in NZ buildings
EN 1928 Method A	Resistance to water penetration
EN 12311-2	Tensile properties testing
EN 12310-1	Resistance to tearing (nail shank)
EN 1931	Water vapour transmission (Sd) testing
EN 1296	Artificial ageing — vapour transmission after UV exposure
EN 13501-1	European fire classification (Class E)
EN 1849-2	Mass per unit area and thickness
EN 1848-2	Dimensions — length, width, straightness

4. STATEMENT ON CONTRIBUTION TO COMPLIANCE

Verso VCL100 does not hold a BRANZ Appraisal. It contributes to compliance through the following means:

- **NZBC Clause B2 (Durability):** Demonstrated through European test standards (EN series). The product's technical data confirms 15-year serviceability when installed, covered, and maintained in accordance with installation instructions. Vapour transmission requirements remain met after artificial ageing per EN 1296.
- **NZBC Clause E3 (Internal Moisture):** VCL100, with an Sd value of approximately 100 m, acts as a Class I vapour barrier (highly impermeable), preventing moisture-laden internal air from reaching cold surfaces in the building structure. Building designers are responsible for confirming vapour control strategy compliance using BRANZ guidance (BU 585) or equivalent.
- **NZBC Clause F2 (Hazardous Materials):** European fire classification EN 13501-1 Class E confirms the product is not hazardous. No NZ AS 1530.2 test report is currently available; the product is intended for internal use only and is not expected to be exposed to occupied spaces in a form requiring NZBC C/AS2 surface finish compliance.
- **NZBC Clause H1 (Energy Efficiency):** As an airtightness membrane, VCL100 reduces uncontrolled infiltration, contributing to the thermal performance of the building envelope. Designers must confirm H1 compliance for their specific building.

Physical Properties

Property	Test Standard	Value / Result
Water penetration resistance	EN 1928 Method A	Requirements met at 2 kPa
Tensile strength (MD)	EN 12311-2	≥140 N/50 mm
Tensile strength (CD)	EN 12311-2	≥120 N/50 mm
Tear resistance (MD)	EN 12310-1	≥110 N (nail shank)
Tear resistance (CD)	EN 12310-1	≥120 N (nail shank)
Sd — Vapour resistance	EN 1931	≈100 m (water vapour resistance: 5.59×10^{11} (m ² ·s·Pa)/kg)
Vapour resistance after ageing	EN 1296 & EN 1931	Requirements met
European fire class	EN 13501-1	Class E
Mass per unit area	EN 1849-2	170 g/m ² (-15/+15)
Thickness	EN 1849-2	0.35 mm (-0.15/+0.15)
Roll length	EN 1848-2	50 m
Roll width	EN 1848-2	1.50 m

5. LIMITATIONS ON USE

- Verso VCL100 is an internal vapour control layer for use on the warm (interior room) side of the building insulation. It must NOT be installed on the cold (exterior) side of insulation.
- The vapour control strategy must be designed by a competent building designer in accordance with NZBC E3/AS1 and relevant BRANZ guidance. A high-Sd membrane such as VCL100 is appropriate for cold climates and passive homes where preventing vapour diffusion into the structure is the design intent.
- Not a structural product. Must be protected from physical damage before internal linings are installed.
- Must be separated from heat sources (fireplaces, heating appliances, flues, chimneys) in accordance with NZBC C/AS1 and C/AS2.
- All laps, penetrations, and connections to adjacent elements must be fully sealed for airtightness; failure to do so will compromise both the vapour control and blower-door test performance.

6. DESIGN REQUIREMENTS

- Building designers are responsible for designing the vapour control strategy, selecting VCL100 for appropriate climate zones and building types, and confirming compliance with NZBC E3 and H1.
- All penetrations (services, cables, pipes) through VCL100 must be sealed with ViBest SuperPro Flashing Tape (75 mm minimum width) for airtightness.
- All connections with windows, roof hatches, and wall-to-floor and wall-to-ceiling junctions must be taped and sealed.
- If a batten system is used between VCL100 and internal linings, fixings for battens must be planned so as not to unnecessarily penetrate the VCL100.
- Restricted Building Work (RBW) must be carried out by or under the direct supervision of a Licensed Building Practitioner holding the relevant licence class.

7. INSTALLATION REQUIREMENTS

Full installation procedures are available at www.ebuilt.co.nz/architect-downloads.

- Install on the warm (room) side of the thermal insulation, from the room side.
- Install horizontally (recommended), working from the top of the wall or ceiling ridge downward.
- Fix using galvanised or zinc-coated staples 11–14 mm long at regular centres.
- All staple/fixing penetrations must be covered with ViBest SuperPro Flashing Tape to ensure airtightness (essential for blower-door test performance).

- Horizontal and vertical laps: minimum 150 mm. Where installed parallel to the structure (vertically), tape all laps directly with ViBest SuperPro Flashing Tape for a complete vapour and airtight seal.
- All penetrations and connections with windows, roof hatches, and junctions must be sealed with a minimum 75 mm ViBest SuperPro Flashing Tape.
- Plasterboard or other internal linings may be fixed directly over VCL100, or a service batten system can be used.
- Damaged areas (tears, holes): repair immediately with ViBest SuperPro Flashing Tape before internal linings are installed.

Note: Installation guides and BRANZ Appraisals available at www.ebuilt.co.nz/architect-downloads

8. MAINTENANCE REQUIREMENTS

- No maintenance is required once VCL100 is covered by internal linings.
- If any repairs to the internal lining expose the VCL100, inspect for damage and repair immediately with ViBest SuperPro Flashing Tape before reinstating the lining.
- Serviceable life is 15 years (B2.3.1(b)) when installed in accordance with the product technical data and not physically damaged.

Note: Maintenance guide: www.ebuilt.co.nz/architect-downloads

9. WARNING OR BAN — SECTION 26, BUILDING ACT 2004

Subject to warning or ban?	No — this product is not subject to any warning or ban under section 26 of the Building Act 2004.
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10. DOCUMENT CONTROL

Version	1.0
Date	05 June 2026
Prepared by	E Built NZ Limited
Document Status	Issued for Use
Review Date	June 2027 (or upon material change to product specification or applicable standards)