CI/SfB		
	(31)	Ln6
CAW P10 Uniclass L6631:P91		

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Description

ME501 VV is a high strength, tear resistant membrane made from polyethylene copolymer film with non-woven fabric and self-adhesive films for reliable and user-friendly application. The membrane can be applied before or after window installation to suit on-site details and programming and is an ideal product as a weathertight/airtight membrane for domestic and commercial applications. The self-adhesive backing (with split release liner) provides a strong and reliable adhesion to most construction substrates and the window, whilst the durable fleece covering protects the membrane from weather and mechanical stress and with less onerous COSHH implications due to no requirement for solvent-based adhesives.
The product meets the recommendations of the RAL Quality Assurance Association for windows and doors. Successfully tested by MPA Hannover to EN1026 (airtightness) and EN1027 (weather tightness). The self-adhesive strips provide a flexible application methodology and will bond to most common substrates. Microscopic adhesive spheres across the adhesive strip make initial repositioning possible, with high bond strength developing over time.
Reduction in application risk especially around corner detailing etc. and from other trades penetrating the membrane post-application - reducing the cost of potential remedial works whilst being easy to repair if necessary.
Intelligent moisture management through variable sd value - ideally installed in conjunction with ME508 Duo Membrane EW/F to facilitate drying out of wall build-up.
UV stable – will tolerate up to 12 months' direct exposure prior to covering.
Fully compatible with illbruck Building Protection Membranes.

Product Variants

ME501 VV is available in various slit widths from 70 – 600 mm. Membrane thickness: 0.6 mm.

Colour

Black

Packaging

ME501 VV is supplied on 25 m rolls.

Dimensions

Item Code	Size (mm)	Size (mm)
501099	70	EW 70 mm§
501100	100	EW 100 mm§
501101*	140	EW 140 mm§
501102*	200	EW 200 mm§
501103*	250	EW 250 mm§
501104*	300	EW 300 mm
501105	350	EW 350 mm
501106	400	EW 400 mm
501107	500	EW 500 mm
501108	600	EW 600 mm

** Available from stock; other sizes available based on 3 – 4 weeks delivery and MOQ.*

§ *These sizes are also available in ME508*

ME501 VV

Duo Window Membrane HD

Usage / Purpose

ME501 VV provides a high performance internal and external seal to the perimeter joints between the window/curtain wall and the construction.
Due to the intelligent, variable vapour permeability (sd value), complies with 'inside tighter than outside principles'. The self-adhesive backing provides a quick and robust method of adhesion to window and construction substrates.
Ideally used as an external weather tight seal in conjunction with ME508 Duo Membrane EW/F as an internal airtight seal.

Key Benefits

- Quick and easy application with high performance 'next generation' waterproof acrylic adhesive strips with split release liner
- Cold/winter weather application easier (with use of primer)
- Requires minimal or no 'wet' adhesive
- Minimises wastage
- Instantly weatherproof up to 1200 Pa and airtight to Passiv Haus standard (600 Pa)
- High-performance adhesive is compatible with most common building substrates (please contact a CPG UK representative for more information or technical advice)

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Technical Information

Property	Test Method	Result
Building Material Class	DIN 4102	B2 (ABP P-NDS04-776)
Water Vapour Permeability	EN ISO 12572	Variable sd value depending on average atmospheric humidity, and acts as an intelligent vapour barrier
Water Vapour Resistance Factor (μ)	DIN 52615	500 - 33000
Weathertight Against Driving Rain	EN 1027	1200 Pa
Watertightness	EN 13859	W1 Corresponds to 2000 Pa
Airtightness	DIN 18542 EN 1026	< 0.1 m^3/[h m (daPa)n]
Adhesion of the Self-Adhesive	AFERA 4001 P11	minimum 12 N/25 mm
Compatibility with Traditional Building Materials in Contact	DIN 18542	Passed
UV Resistance of the Non-Woven Film Composite (Non-Woven Composite, Weathered Fleece Side Free)		12 months
Temperature Resistance		-40°C to +80°C
Processing Temperature		+5°C to +45°C
Storage Period		1 year

Preparation

- ME501 VV adheres well to masonry, concrete, PVC, metal, wood, solid or laminated insulation materials.
- The adhesive bond zones must be dry and free of oil, grease and dust or other anti-adhesive components. Clean with AW115, AW414 or AW421 Cleaner (recommended), taking care to avoid damage to sensitive substrates.

Primer

- ME501 VV can be applied without the use of a primer in many circumstances. However, for best results it is recommended that ME501 VV is applied with either ME901 or AT140** paint-on primers.
- Use AT140 primer to apply ME501 VV in ambient temperatures lower than 5°C.
- Use AT140 Primer on friable substrates – note the flash-off time.
- Use AT140 or ME901 Primer in slightly damp conditions.
- ME501 VV is suitable for bonding to EPS/XPS thermal breaks on balcony support brackets and specialist forms of EPS/XPS building systems such as Nudura Block. The high strength Acrylic dispersion adhesive coating used with ME501 VV does not contain solvents that would otherwise attack the EPS/XPS. If necessary use ME904 solvent free, acrylic copolymer primer.

** *Please read and understand the technical and safety datasheets of these products*

Application

- The ME501 VV should be bonded to the weather sheathing board or similar weather line of the wall build-up behind the external skin. If a breather membrane has previously been applied to the backing wall, cut back to the line of where the perimeter membrane will locate against the backing wall to enable bonding directly to the sheathing board (or similar). Ensure all bond zones are free of debris and other material which may affect adhesion such as excess silicone or fire rated compound between sheathing board joints.
- Silicone based sealants and fire rated compounds used to seal butt joints between sheathing boards are a barrier to adhesion for any adhesive. Use AT140 Primer on such substrates. Special preparation is required - please consult with a CPG UK representative.

Attachment to the Window

- Most applications involve applying ME501 VV first to the window profile installed projecting forwards of an SFS framed and sheathed backing wall.
- Clean the frame as in 'Preparation'. Measure and pre-cut individual lengths of ME501 VV appropriate to sill, jambs and head to match the window dimensions and the additional overlap at each end equal to the width of the membrane in use.
- Starting at the sill, dry fit the membrane with the release liners still attached and mark the front edge of the membrane at the window extents.
- Fold the membrane upwards to form a 90° angle tucking it up under the sill and the remaining membrane placed against the sheathing board or concrete, also at a 90° angle.
- Make a mark where the lower/outer edge of the membrane will terminate on the sheathing board or other substrate.
- Using an appropriate long straight edge or other device such as a laser level, draw a line to indicate where the membrane will terminate to use as a guide to levelling on the substrate.
- Remove the single narrower release liner on the non-printed face of the membrane and position the self-adhesive strip on a suitable flat surface of the sill profile (the printed face should be facing the exterior). Bond the membrane to the sill with an ideal minimum 20mm of self-adhesive contact.

Attachment to the Wall

- Now remove the wide dual release liners (one at a time)** and bond the membrane at 90° to the sheathing board or other substrate using your marked out line as guide to ensure a neat and level finish. The membrane should now be at a 90° "L" shape with the un-bonded extensions at either end resembling a tube.

** *Membranes with dual release liners: Remove the one adjacent to the narrower strip first. Bed down and bond onto substrate. Then remove second (outer) release liner, bed down and bond onto substrate.*

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Forming the First Layer of the Corner Seal

- Starting at one end, and using the printed lines and graphics of the outward face of the membrane as a guide, slit the loose end of the membrane extension along horizontally until it is level with the bottom of the window frame. Take care not to slit too far or too short.
- Slitting will form a flap which will be folded upwards and bonded to the side of the frame at the jamb. The lower remaining section is bonded flat to the substrate.
- Once bonded repeat the same actions on the opposite end.
- Now apply firm pressure with an illbruck AB004 VV seam roller to all membrane surfaces to fully bed down the self-adhesive and remove / flatten any wrinkles on either the window frame profile or substrate.

Jambs and Head

- Continue with the left and right jambs repeating the same actions outlined previously remembering that you are now applying the membrane in the vertical plane.
- When the jambs are complete, apply the head sections.

Alternative Application Strategy

- Sometimes it may be more expedient to form the corners separately to the main run of membrane. In this case, cut a suitable length of ME501 VV (circa 150mm) and twist the membrane on the narrow self-adhesive strip to form a corner shape. Apply one to each corner of the window, removing each release liner as you apply it to the frame. The ME501 VV can then be run from corner to corner in single runs.
- If the window fixing straps interfere with enabling the membrane to be applied in a single run, or if they may prevent the achieving of a satisfactory seal, consider cutting out suitable size patches of membrane and covering the straps. The main run of membrane can then be applied either side of the patches, ensuring appropriate overlap onto the patches (min. 50mm).

Inspecting the Completed Application

- The completed application should resemble a picture frame border to the installed window.
- Check the cuts and folds at all of the corners and ensure that there are no gaps. If any imperfections or small holes are visible cut a small patch from the membrane roll and use it to cover the imperfection.
- Please note that the self-adhesive used with this membrane is very strong and will grab to almost any surface more or less instantly, particularly your gloved hand! For optimum performance, try to minimise hand contact with the exposed self-adhesive layer to prevent it from picking up dust and debris which can reduce the effectiveness of the adhesive bond.

Existing or Pre-applied Breather Membranes

- Re-instate the breather membrane if applicable by sealing the edge joint between the newly applied window membrane and the existing breather membrane using illbruck ME315 Total Protection Tape.

Optional Use of Pre-Moulded 3D Corners

- ME241 EPDM Corners may be used for forming the corner seals.
- See ME241 TDS and method statement for further application details. It is necessary to use illbruck OT015 to bond ME241 to other components and ME501 VV to ME241.

Please Note

- ME501 VV should always be installed with the branded non-shiny (fleece) face facing outwards. This is to ensure UV resistance for up to 12 months (and to facilitate over-plastering if required for internal applications). If the shiny face is accidentally installed facing outwards, the air and weather tightness properties will not be affected but the membrane must be covered within 2 weeks to avoid UV degradation. If there are small gaps in the external cladding e.g. between rainscreen panels, this is classed as exposed (an alternative illbruck membrane may be required).
- If ME501 VV has been exposed to UV light over the stipulated tolerances, simply cover over with a further application of ME501 VV.
- For thermal and/or acoustic insulation to the window/construction interface, we recommend illbruck FM330 Pro Foam Air Seal to be applied into the perimeter gap subject to construction details.
- For curtain walling applications, it may be necessary to apply ME501 VV with an amount of 'play' across the membrane width, i.e. do not bond tightly across the joint but allow excess material so that in the event of movement, the membrane will not be stretched tightly. For applications where significant movement, prolonged soaking or foot traffic to horizontal surfaces is expected e.g., door thresholds, illbruck ME220 EPDM Membrane should be used.
- If intending to apply 'wet' finishes over the membrane, ensure application to the branded non-shiny (fleece) face. For large areas and improved adhesion of the finish, a plaster mesh version of ME501 VV is available subject to minimum order quantity and 3 – 4 weeks' delivery. Do not employ the 'dot and dab' method of fixing dry lining as the increased thickness and resultant weight of the adhesive will prevent bonding to the membrane.

Health & Safety Precautions

Fig 1. OT015 Adhesive beads applied; linear membrane already bonded

Fig 2. ME241 Corner bonded

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Safety data sheet must be read and understood before use.

"i3" Window Sealing System; Part of the state of the art, ift- approved sealing system, with a 15 year guarantee.* This system fulfils the EnEV requirements with regards to airtightness.; *Under the conditions specified by the manufacturers. Only valid on receipt of the correct registration documents in accordance with terms and conditions, available on request.

Technical Service
tremco CPG UK Ltd has a team of experienced Technical Sales Representatives who provide assistance in the selection and specification of products. For more detailed information, service and advice, please call Customer Services on 01942 251400.

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