

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

### Description

ME501 is a high strength, tear resistant membrane made from polyethylene copolymer film with non-woven fabric. It can be applied before or after window installation to suit on-site details and programming. It is also available with gasket options for fixing to window profiles.

The product meets the recommendations of the RAL Quality Assurance Association for windows and doors. Successfully tested by MPA Hannover to EN1026 (airtightness) & EN1027 (weathertightness). The membrane is attached to the window with SP525\* adhesive, enhanced 'acrylic adhesive +' strip, or integral gasket and to the construction reveal material with SP525\* adhesive. (\* see below in 'Please Note')

### Product Variants

- ME501 – membrane slit to required width, without adhesive (use SP525 to bond to frame and structure).
- ME501 – standard widths of 150 mm & 300 mm, with gasket (use SP525 to bond to structure). There are four gasket options – see 'Gasket Options' on next page.
- ME501 - with enhanced 'acrylic adhesive +' strip for bonding to frame (use SP525 for bonding to structure).

### Colour

Black

### Packaging

ME501 is supplied on 25 m rolls.

### Dimensions

- Slit to width 60- 1,500 mm
- Membrane thickness 0.6 mm
- Length Tolerances to DIN 7715 P3
- Width dimensions to tolerance  $\pm 2.5$  mm

### Application - Bonding with SP525 Adhesive After Frame Installation

**For full details - refer to Method Statement**

(suitable for single windows and curtain walling/multiple coupled windows)

- Ensure window frame is clean and dry. Apply a 10 mm dia. bead of SP525 to the frame face or edge (as appropriate) to allow alignment 15 mm from one edge of the back (shiny) face of the membrane. Consolidate with a seam roller, taking care that the adhesive does not exude out onto the frame. The compressed bead should now be approximately 20-30 x 2-3 mm. If it is not possible to apply a consolidated bead of minimum 20 mm, please consult tremco illbruck technical department.
- Although OT015 is primarily intended for bonding ME220 (EPDM) membrane, it can also be used for bonding ME500 and ME501 'intelligent' membranes – see appropriate TDS's.

NOTE:

For further information regarding SP525, please consult technical data sheet, available from website ([www.illbruck.co.uk](http://www.illbruck.co.uk)).



## ME501

### Duo Window Membrane HD

#### Usage / Purpose

Provides a high performance seal to the perimeter joint between the window/curtain wall and the construction reveal. Due to the intelligent, variable vapour permeability (sd value), when used in an internal UK (warm) environment, it will be vapour-tight, and when used in an external UK (cold) environment it will be vapour open. This means that the membrane is suitable for interior and exterior use providing an air-tight and weather-tight seal whilst always complying with inside tighter than outside principles.

#### Key Benefits

- Complies with principle of 'inside tighter than outside' in order to facilitate efficient vapour control
- BBA accredited alternative to EPDM in many applications
- Excellent drying potential (due to the membrane's vapour permeability) avoiding mould growth and physical damage
- UV stable - will tolerate up to 12 months direct exposure prior to covering
- Fully compatible with illbruck Building Protection Membranes

## ME501

### Duo Window Membrane HD

#### Application - Bonding with Enhanced 'Acrylic Adhesive +' Strip

- Bond the ME501 to the edge or face of previously cleaned frame and to construction material with SP525 adhesive

#### Gasket Option

As an alternative fixing method to the frame, there are four gasket options which can be used, dependent on a suitable groove on the frame profile. The gasketed membrane is fixed to the construction material using SP525 as in previous application details above.

ME501 is the world's first intelligent (sd variable) window membrane with gasket attachment and RAL approval. This guarantees highest quality and durability and the air tightness and weather tightness performance can be maintained.

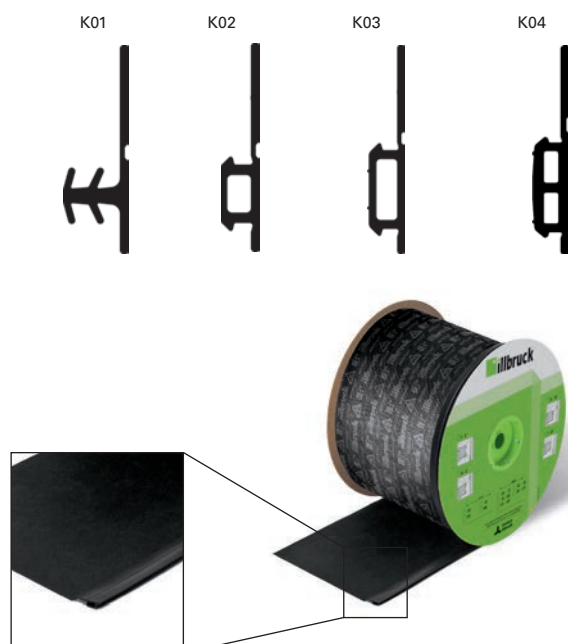
When using the gasket fixing option, if the frame is being installed into a reveal, the membrane will need to be applied prior to installation. If installing where the frame projects forward of the opening, the membrane can be applied after installation.

#### Benefits

- Weather and surface-independent attachment to the window
- Four gasket options to suit most window/curtain walling profiles
- High security
- RAL-tested

#### Gasket Dimensions

Gasket Type	Minimum Groove Depth (mm)	Groove Width (mm)
K01	Approx 6.5	Approx 3 - 5
K02	Approx 4.0	Approx 5 - 7
K03	Approx 4.0	Approx 7 - 10
K04	Approx 4.0	Approx 13 - 15



#### Technical Information

Property	Test Method	Result
Building Material Class	DIN 4102	B2 (ABP P-NDS04-776)
Water Vapour Permeability	EN ISO 12572	sd value between 0.3 and 20 m, depending on average atmospheric humidity, and acts as an intelligent vapour barrier
Water Vapour Resistance Factor ( $\mu$ )	DIN 52615	500 - 33000
Weathertight Against Driving Rain	EN 1027	> 600 Pa
Airtightness	DIN 18542 EN 1026	< 0.1 m <sup>3</sup> /[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

#### Please Note

\*Although bonding of the membrane to the window, construction material and to itself is normally with SP525 as previously stated, it is sometimes necessary to use illbruck OT015 HighTack Membrane Adhesive due to the type of substrate potentially being unsuitable for SP525 eg certain plastics or when bonding to EPDM (illbruck ME220) including ME241 EPDM Corners. This applies to any reference to SP525 application in this TDS. Due to being solvent-based, care should be taken when using OT015 in case of damage to sensitive substrates. If in doubt, please consult tremco illbruck Technical Department.

- ME241 EPDM Corners are strongly recommended for forming the corner seals, avoiding the need to make multiple cuts and folds in applying the ME501 membrane. See ME241 TDS and method statement for further application details. It is necessary to use illbruck OT015 HighTack Membrane Adhesive to bond ME241 to other components and ME501 to ME241.
- Although SP525 is the preferred adhesive for bonding ME501 to various construction substrates, other adhesives may be required depending on substrate type/condition (refer to tremco illbruck Technical Services Department for further advice).

- For thermal and/or acoustic insulation to the window/construction interface, we recommend FM330 Pro Foam Air Seal to be applied into the perimeter gap.
- SP525 is a 'green' alternative to traditional polyurethane sealants/adhesives and does not contain solvents or isocyanates and is a very low odour material. The product is supplied in 600 ml foils which results in easy waste disposal.
- Contact with certain construction materials may result in interactions. Compatibility must be tested in individual cases. Please consult separate technical data sheet for further information.
- Bonding to wall and frame surfaces: surfaces must be dry and free of oil, grease, dust and other anti-adhesive components. Do not apply ME501 in temperatures below 5°C.
- Certain substrates may require priming- this should be checked in advance of application. Please consult tremco illbruck Technical Services Department for choice of primer.
- A metal clamping strip/termination bar may be necessary on some applications to enhance the fixing of the membrane to the window frame when using SP525 or the enhanced 'acrylic self-adhesive+.
- If intending to apply wet finishes over the membrane, ensure application to the non-shiny 'fleece' face. For large areas and improved adhesion of the wet finish, a plaster mesh version of ME501 is available, subject to minimum order quantity and 3 – 4 weeks' delivery.
- ME501 should always be installed with the non-shiny (fleece face) 'facing the outside'. This is to ensure UV resistance for up to 12 months and to facilitate over-plastering. If the shiny face is installed 'as seen', 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 such as between partially open rainscreen panels, this is classed as exposed.
- ME501 is fully compatible with illbruck Building Protection Membranes- see separate literature.
- For curtain walling applications, it may be necessary to apply the ME501 with an amount of 'play' across the membrane width ie 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 is expected, illbruck ME220 EPDM Membrane should be used.
- Always bond both membrane edges within 72 hours maximum to avoid damage due to unsecured membrane becoming exposed to UV (to the shiny face) and/or mechanical abrasion due to contact with other components during periods of wind pressure.

### Health & Safety Precautions

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 10 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.



BBA Accredited Certificate N° 12/4891 as part of the i3 system.



### Technical Service

tremco illbruck 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.

### Guarantee / Warranty

tremco illbruck products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with tremco

illbruck written instructions and (b) in any application recommended by tremco illbruck, but which is proved to be defective, will be replaced free of charge.

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**tremco illbruck Limited**  
Coupland Road, Hindley Green  
Wigan WN2 4HT  
United Kingdom  
T: +44 1942 251400  
F: +44 1942 251410

sales.uk@tremco-illbruck.com  
www.tremco-illbruck.co.uk