

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

## Material

Polyethylene copolymer film with woven fleece fabric and acrylic self-adhesive or gasket and butyl adhesive strips for location to frame and wall respectively.

## Description

ME500 Duo Flexible Window Membrane W comprises a tear-proof woven fleece fabric with a polyethylene copolymer film including an integrated movement pleat for variable joint sizes and absorption of movement.

The product is BBA accredited and complies with the planning and installation recommendations of DIN 4108-7 and with the RAL Quality Assurance Association for windows and doors. It is attached to the wall with butyl adhesive, and to the window /door with a self-adhesive strip or gasket. The adhesive strips are located on opposite membrane faces and this version is intended for application to windows & doors prior to installation. The product has a specially designed reactive membrane- water vapour permeability (sd value) changes depending on the humidity inside the joint. This allows the product to perform as an intelligent seal for airtight internal joints, and weathertight breathable external joints. The intelligent reactive system ensures that the joint always dries at the maximum rate.

## Colour

Grey

## Dimensions

| Width (mm)  | Rolls per Carton | Metres per Carton |
|-------------|------------------|-------------------|
| W 60 - 80   | 6                | 300               |
| W 80 - 110  | 5                | 250               |
| W 110 - 140 | 3                | 150               |

Please note, 'W' version has self-adhesive and butyl strips on opposite faces of membrane.

All rolls are 50 m in length.

## Priming

Priming with ME901 (brushable) or ME902 (spray) Butyl & Bitumen Primer may be required on dusty or damp substrates, or where the ambient temperature is below 5°C.



## ME500-W

### Duo Flexible Window Membrane W



#### Usage / Purpose

ME500-W is an intelligent membrane providing perimeter window seal for airtight internal & weathertight external joints.

#### Key Benefits

- The variable sd value ensures that the joint dries out quickly, thus protecting against mould and moisture damage.
- Single product acts as internal airtight seal and external weathertight but breathable seal.
- Easy fixing to frame and wall.



"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.

## Duo Flexible Window Membrane W

### Application as Internal Airtight Seal

Please note : the membrane should be attached prior to fitting of the windows/doors.

- Bond membrane with the self-adhesive strip to the outer edge of the window frame ensuring that the expansion pleat fold line is in line with the edge/inner face junction of the frame as fig 1 (note, drawing shows an inward opening window). Start at the centre of bottom frame section.
- Continue around the frame, applying to all sides and leave min 20 mm fold at each corner as fig 2.
- Allow a 50 mm overlap of the start and end points of the membrane application.
- Bend and fold film so that the self-adhesive strip is back to back at the corners.
- Fit fixing brackets to edge of frame over the membrane.
- Fit the window/door. The membrane should be projecting across the internal reveal.
- If insulating the joint between frame and reveal, apply FM230 Pro Foam Window.
- If necessary, prime the reveal area where the butyl adhesive will be located. The corner folds should be opened out to fit into the corners of the reveal.
- Bond membrane to reveal using the butyl strip. Ensure that the membrane is located as in fig 3.
- Consolidate the bond using a seam roller as fig 4.
- The exposed side of the membrane can be dry-lined, or plastered over. If using plaster, it is recommended to use ME500 Duo Membrane with plaster mesh (consult sales office for details) and the membrane must be bonded tightly to the reveal with SP525 as air pockets behind the membrane may cause cracking of the plaster.
- All lap joints and areas of potential air leakage paths (eg. around fixing brackets) must be sealed with SP525.

### Technical Information

| Property                                           | Test Method           | Result                                                                                                               |
|----------------------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------|
| Class of Building Material                         | DIN 4102              | (normal inflammability), P-NDS04-292                                                                                 |
| Water Vapour Permeability                          | DIN 4108-3            | sd value between 0.21 and 15 m, depending on average atmospheric humidity, and acts as an intelligent vapour barrier |
| Adhesive Strength of Butyl                         |                       | 12 N/25 mm                                                                                                           |
| Adhesive Strength of Self-Adhesive                 |                       | 12 N/25 mm                                                                                                           |
| Compatibility with Conventional Building Materials | DIN 52 452            | passed                                                                                                               |
| Temperature Resistance                             |                       | - 40°C to +100°C                                                                                                     |
| Application Temperature                            |                       | + 5°C to + 45°C                                                                                                      |
| Storage Period                                     |                       | 1 year                                                                                                               |
| UV Resistance                                      |                       | approximately 2 months                                                                                               |
| Airtightness                                       | DIN 18 542<br>EN 1026 | < 0.1 m <sup>3</sup> /[h m (daPa)n]                                                                                  |
| Weathertight Against Driving Rain                  | EN 1027               | > 600 Pa                                                                                                             |

Length tolerances in accordance with DIN 7715 P3, width measurements in accordance with tolerance  $\pm 2.5$  mm. The self-adhesive strip is 1 to 6 mm in from the edge.

### Attachment to Window

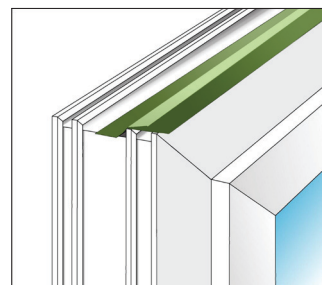


Fig 1  
Bond film to edge of window frame

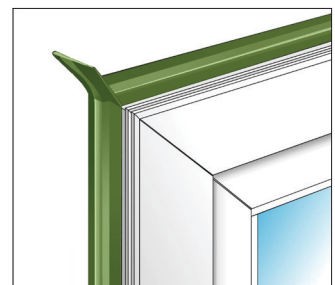


Fig 2  
Form a 20 mm fold in the corner area

### Attachment to Wall with Butyl

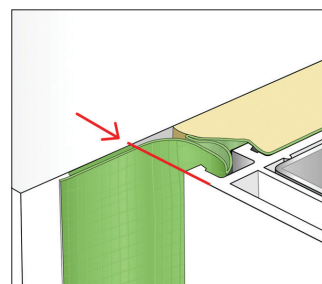


Fig 3  
Positioning of the butyl strip

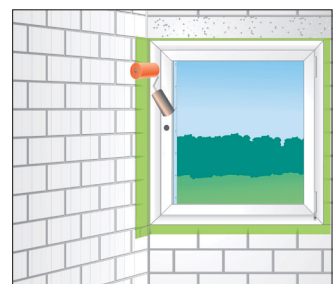


Fig 4  
Consolidate the butyl bond using a roller

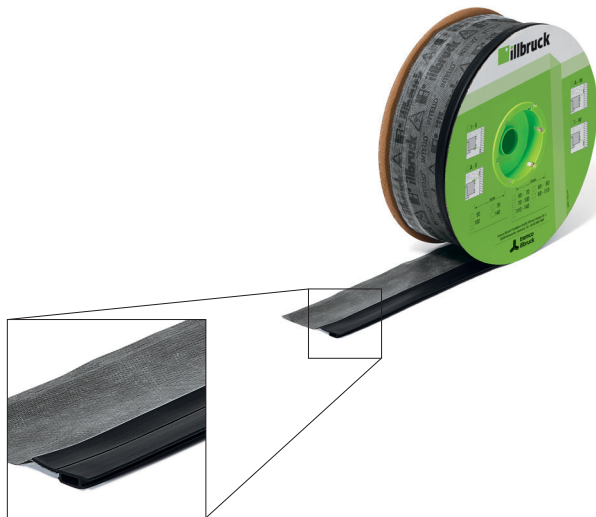
## ME500-W

# Duo Flexible Window Membrane W

### Application as External Weathertight Seal

As above, the membrane should be applied prior to fitting of the windows/doors.

- Apply the membrane following the above instructions for internal application to the outer edge of the frame. For external application however, ensure the expansion pleat fold is in line with the edge/outer face junction of the frame.
- Fit the window/door. The membrane should be projecting across the external reveal.
- If necessary, prime the reveal area where the butyl adhesive will be located. The corner folds should be opened out to fit into the corners of the reveal.
- Bond membrane to reveal using the butyl strip. Ensure that the membrane is located as in fig 3. Consolidate the bond using a seam roller.
- All lap joints and areas of potential weather ingress must be sealed with SP525.
- The membrane must be covered within 2 months to protect from UV, normally by an insulated cladding/render system. If a 'wet' finishing system is to be applied, it is recommended to use Duo Membrane with plaster mesh (consult sales office for details) and ensure that the membrane is bonded tightly to the reveal as air pockets behind the membrane may cause cracking of the finish.



### Gasket Option

(replacing acrylic self-adhesive strip)

In certain application situations such as low temperature or wet weather, or on certain substrates, the standard acrylic self-adhesive strip may require the frame surface to be primed, and as an alternative fixing method, there are four gasket options which can be used dependent on a suitable groove on the frame profile. The gasketed membrane is available with or without butyl self-adhesive strip for fixing to the structure.

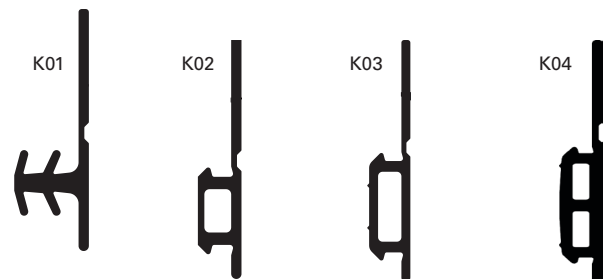
ME500 Duo Window Membrane W is the world's first intelligent (sd variable) window membrane with gasket attachment and RAL approval. This guarantees the highest quality and durability and the air tightness and weather tightness performance can be maintained.

#### 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     |



If using membrane without butyl self-adhesive strip, bond to structure with SP525. Membrane with gasket option does not include a movement fold.

#### Please Note

- Bonding to wall and frame surfaces: bonding surfaces must be dry and free from oil, grease, dust and other anti-adhesive components. illbruck ME901 (brushable) or ME902 (spray) Butyl & Bitumen Primer may be required on some wall surfaces.
- The use of butyl tapes in conjunction with sealing materials may result in interactions.
- Compatibility must be tested in individual cases.

#### Health & Safety Precautions

Safety data sheet must be read and understood before use.

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**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 0191 419 0505.

**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](mailto:sales.uk@tremco-illbruck.com)  
[www.tremco-illbruck.co.uk](http://www.tremco-illbruck.co.uk)