

CI/SfB	(31)	Zt4
CAW P10		
Uniclass L675:P91		

## Description

A flexible open cell polyurethane foam impregnated with a flame retardant acrylic resin. The face installed to the internal side of the tape is coated with a thin polymer film.

Solvent-free, single-sided self-adhesive for initial location to window frame. TP653 is free from halogen-containing flame retardants, solvent, silicone and (H) CFC's.

## Colour

Anthracite with black polymer film to internal face

## Standard Sizes

Article Number	Size (width/application)	Metres per Roll	Rolls per Carton
501244	58/5-10	8.00	5
501245	66/5-10	7.00	4
501246	72/5-10	6.00	4
501247	77/5-10	6.00	3
501248	83/5-10	5.00	3
501249	88/5-10	5.00	3
501250	58/7-15	7.00	4
501251	66/7-15	7.00	3
501252	72/7-15	6.00	3
501253	77/7-15	6.00	3
501254	83/7-15	5.00	3
501255	88/7-15	5.00	3
501256	58/10-20	5.00	4
501257	66/10-20	5.00	3
501258	72/10-20	5.00	3
501268	77/10-20	5.00	3
501269	83/10-20	5.00	2
501270	88/10-20	5.00	2

## Technical Information

Property	Test Method	Result
Building Classification	DIN 4102	B1, flame retardant
Exposure Class for Impregnated Foam Tapes	DIN 18542	BG 1 + BG R
Weather Tightness	DIN EN 1027	600 Pa
Thermal Conductivity	DIN EN 12667	$\lambda = 0.0445 \text{ W/(m.K)}$
U-Value: Window depth 60 mm		0.8 W/(m <sup>2</sup> .K)
U-Value: Window depth 70 mm		0.7 W/(m <sup>2</sup> .K)
U-Value: Window depth 80 mm		0.6 W/(m <sup>2</sup> .K)
Water Vapour Diffusion	DIN EN ISO 12572	Vapour permeable to outside
Water Vapour Gradient		Inside tighter due to polymer film
Air Tightness	DIN EN 12114	a - value < 0.1 m <sup>3</sup> /(hm[daPa] <sup>2/3</sup> )
Air Tightness Polymer Film		100% air and smoke tight
Acoustic Insulation (10 - 20 mm)	DIN EN ISO 10140-2	42 dB in 20mm wide joint; 50dB with more compression
Compatibility with Conventional Materials	DIN 18542	BG1 - given. Perform compatibility test when in contact with solvents or plasticisers
Emission Test (indoor air quality)	AgBB/DIBT	EC1 Plus. Suitable for interiors
UV Resistance	DIN 18542	Permanent
Life Expectancy		> 25 years
Service Temperature		-30°C to +80°C
Storage		Store rolls horizontally and in original carton between +1°C and +20°C in dry conditions and away from direct sunlight. Re-seal packaging between use to prevent expansion during storage
Shelf Life		12 months when stored in its original unopened containers



## TP653

### Trio X



### Usage / Purpose

TP653 is a premium multi-functional tape for the perimeter sealing of windows and doors and is covered on the internal face with the new illbruck polymer film. This results in a high level of air and smoke tightness and a higher sd value to the inside whilst being vapour permeable to the outside. This complies with the principle 'inside tighter than outside' per the RAL guideline.

Weather tightness and thermal and acoustic insulation is also provided through the whole depth of the perimeter joint.

### Key Benefits

- Weather tight to 600 Pa minimum
- Air and smoke tight due to new Polymer film technology to the internal face
- Meets the strict requirements of Blower Door Tests including smoke generation for Passivhaus construction.
- Energy saving through extreme air tightness and thermal insulation
- Single product application resulting in more windows fitted per day
- Achieves 41 dB sound reduction, increasing to 61 dB if capping internally with SP525

## TP653

### Trio X

#### Preparation

- For installation, a measuring tape, cutting shears and sharp cutting knife are required. An illbruck AB006 Tape Belt is also advisable to maintain compression of the remainder of material on a part-used roll.
- Ideally the tape should be stored and used at temperatures between 10- 20°C. High temperatures accelerate the tape expansion process and low temperatures slow it down.
- The window opening should be continuous, and free from debris which may protrude into the perimeter joint.
- Clean the sides of the window frame.

#### Application

- Select the tape dimensions according to the table after determining the window frame depth and joint width (Fig 1).
- Prior to applying from a new roll, cut off the wedge shaped section at the start of the roll.
- Add 20 mm/m of joint when cutting tape to length (Fig 2).
- Make sure that the black polymer film is pointing towards the room interior.
- If the joint width is narrow in relation to the tape thickness, spraying a misting of water into the joint may assist with frame installation.
- To ensure a weathertight seal to the bottom corners, apply a 10 mm diameter bead of SP525 to bottom corners of the window opening to match joint depth of tape (Fig 3).
- For the sill application, cut appropriate length of tape to suit opening width, ensuring a tight fit to each corner and allowing an additional 20mm/m of joint length. Apply the TP653, with self-adhesive face down and ends bedded in the SP525 beads (Fig. 4).
- To accommodate setting blocks, notch out the tape around the blocks using a sharp knife (Fig. 5 & 6), ensuring a minimum 20 mm of tape remains to the external face of the tape. To maintain optimal airtightness, seal around the inner face of the setting block with SP525.
- Apply the tape to the head and two sides of the window, with the head application to full opening width and the sides tightly butting up to the underside of the head application (Fig. 7).
- The window can be fixed either through the frame or by using fixing lugs/ brackets.
- If frame packers are required, insert the packer between the pre-compressed TP653 and the window opening, fix the frame and then remove the packers. The tape will subsequently expand and fully seal the gap with the frame remaining secured in position.

#### "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.

#### Please Note

- Before conducting a Blower Door or Hose Test, the tape must be allowed to expand and completely fill the joint. To this end, it should be left 7- 10 days to condition in the joint before the test.
- The tape must not be used with solvent or aggressive chemicals. The compatibility of any paint or sealant coverings must be tested.
- Store rolls horizontally in the original box and weighed down to prevent expansion.

#### Health & Safety Precautions

Safety data sheet must be read and understood before use.



Figure 1: The joint width should be in the middle of the operational area. The opening and joint width tolerances should be taken into account

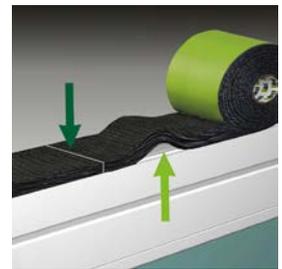


Figure 2: Install the tape with allowance of 20 mm/m joint length. Create 'loop' to ensure tight fit



Figure 3: Apply a 10 mm diameter bead of SP525 to bottom corners of the window opening to match joint depth of tape



Figure 4: Apply the TP653, with self-adhesive face down and ends bedded in the SP525 beads



Figure 5: To accommodate setting blocks, notch out tape

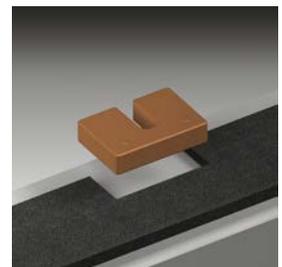


Figure 6: To accommodate setting blocks, notch out tape



Figure 7: Position TP653 to the frame edge with the polymer film to inside. Make tight butt joint at the corners



Figure 8: Install the window within 15 minutes

TP653

Trio X



**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