

# ENERGY-EFFICIENT & SUSTAINABLE SEALING SOLUTIONS FOR REFURBISHMENT

### It's the seal

### that matters

#### Energy saving • Cash saving • Value increasing • Wellbeing • Environmental consciousness

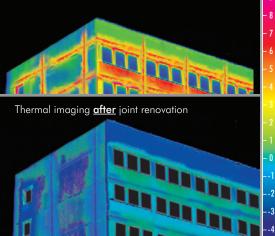
When we consider potential improvements for building renovation, we cannot ignore the subject of sealing building joints. Because this is where large amounts of warm air often get lost, a fact that is reflected in high heating bills.

In addition to reducing energy loss, joint sealing also means ensuring increased comfort and cosiness, since a cold draft in a renovated house is not only unpleasant, it can also lead to problems with condensation and mould. Energy-related renovation in old buildings is an extensive subject, which is why there are clear regulations and guidelines for the renovation of old buildings. Only the sensible combination of all components from an energy-related point of view ensures an optimum overall concept.

People are used to using modern sealing materials in new buildings. There are numerous products available. But which intelligent solutions are suitable for old buildings? The following pages provide useful information on the subject of energyrelated building joint renovation.







Energy consumption of private households in Germany

- 12,5% hot water
- **6,1%** cooking, drying, ironing
- **8,7%** home appliances
  - 1,8% lighting

Source: Statistisches Bundesamt, Status January 2012

70,9 % space heating

# Numerous good reasons for energy-related building joint renovation

#### The european regulation for energy saving

In Germany and through similar regulations in many other european countries, the Energy Saving requirement provides the main regulation on the subject of energyrelated building renovation and thus on sealing building joints.

Alongside the precise definition of U-values for components such as windows, external doors, roof and walls, the ordinance includes a defined regulation for the renovation of building rules. According to this, buildings must be built in such a way that joints are permanently sealed airtight. This specification is also valid in connection with the replacement of structural elements in existing buildings.

The most important requirement, air-tightness, means a reduction of heat loss on the one hand and the controlled handling of humidity suspended in the air on the other.

Air-tightness is expressed in the form of the so-called a-value. The value, restricted to maximum 0.1, cannot usually be permanently achieved by filling a moving structural joint e.g. between a window and the masonry with a thermally insulating PU Spray foam. Addittional permanently elastic sealing materials are required to absorb the movements of the structure without cracking, and thus guarantee the air-tightness and weather-proofness of the connection joint in the long term.

#### a-value

The characteristic value of the air permeability of joints is the socalled a-value. This indicates the maximum amount of air per hour that may penetrate one metre of joint length. The lower the value, the less energy is lost and the more money can be saved.

#### Thermal and moisture protection in buildings

#### sd-value

The sd-value indicates how impermeable a material is against a humid air flow. The higher the value, the more impermeable the sealing material is against a humid air flow. National regulations which must be considered in close connection with the Energy Saving requirement, indicates various installation possibilities and deals with both airtightness and humidity flow, plus the maxim "more airtight inside than out". According to this, the joint seal on the inside should prevent humid air from the room side penetrating the joint in order to prevent condensation forming. Nevertheless, it must be guaranteed that any residual humidity in the joints can escape through the masonry to the outside.



DIRECTIVE 2002/91/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 16 DECEMBER 2002 ON THE ENERGY PERFORMANCE OF BUILDINGS



### 3-level principle of window sealing in accordance with RAL "Installation guide"

#### Level (1) Separation of internal and external climate

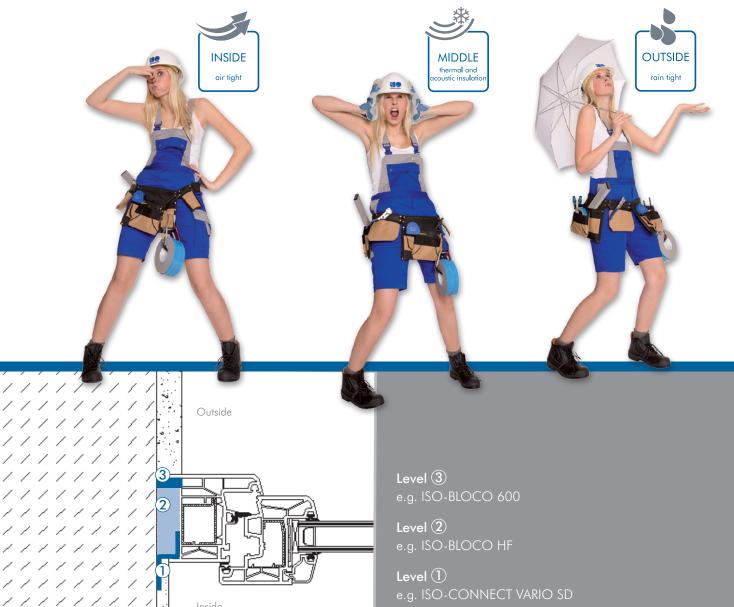
The penetration of humid room air into the structure should be prevented on this level, thus preventing condensation of this humidity at points where surface temperatures are below the dew point. An airtight seal is fitted to prevent uncontrolled heat losses and drafts via the connection joint.

#### Level (2) **Functional** area

Thermal and acoustic insulation must be guaranteed on this level. The area must remain dry and must not be subject to condensation from the room side nor pelting rain from the outside. Humidity would reduce the insulation effect immediately. 5% humidity reduces insulation by 50%.

#### Level (3) Weather protection

Level 3 must be designed to resist pelting rain, as a wind and rain barrier. Pelting rain resistance values of at least 600 Pa are usually required; these are achieved or even exceeded with suitable sealing materials.



Inside

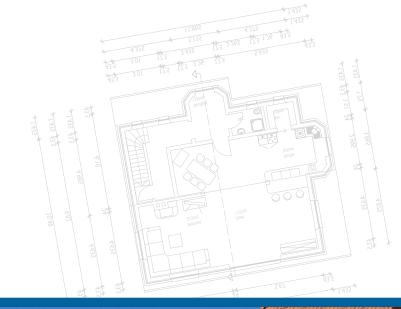
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### Building joint renovation and listed buildings

The renovation of listed buildings often presents planners and building companies with great challenges, because the building's appearance and historical fabric have to be preserved to a major extent. In addition to narrow frames and casement profiles, the building connection joints are usually required to remain delicate and blend into the overall impression. Wide connection joints, reduction of window sizes, less light and coarse bracing are usually not acceptable. The difficulty is in combining the demanding legal requirements in terms of functionality, movement absorption and processing reliability with the strict specifications related to appearance and the maintenance of historical building fabric in such a way that an optimum result is obtained in all aspects.

This objective can only be achieved with careful planning and the use of products specially designed for modern renovation work such as multifunction joint sealing tapes, pre-compressed sealing tapes, sealing foils and special renovation systems. These offer lots of application possibilities for joint sealing in the renovation of old buildings.





### .... Past with a future.



# Our "specialist" – ISO-BLOCO RENO

ISO-BLOCO RENO is a multifunctional sealing and insulating system specially developed for energy-related window renovation. The sealing system is fitted directly into the U-recess where the old window has been removed, then it expands against the frame after the new window has been fitted, thus giving a secure seal.

The renovation system is made up of two connected sealing components. The core layer is made of high-quality polymeric material and provides a smooth surface for the seal, since it guarantees an optimum basis for sealing the connection joint against the window profile, similar to the fine layer of plaster in a new building. At the same time, the cavities behind it are sealed and insulated safely. The second component is a pre-compressed sealing tape with an integrated foil membrane which expands slowly against the window profile and seals this reliably. To make fitting easier, the tape has also been made self-adhesive.

The multifuntional material has 3 distinct areas which combine to achieve the 3-level sealing required by the RAL "Installation Guide". On the internal side it has an a-value of 0.00, which means it is 100% airtight and acts as a vapour barrier, in the middle area it ensures optimum acoustic and thermal insulation and in the outer area it provides outstanding protection from the weather with a driving rain impermeability of more than 1,000 Pa (Hurricane Forces).

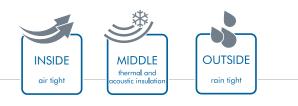


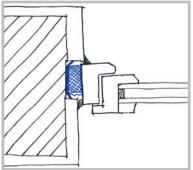
Tape width x gap sealing capacity	Width of U-recess	Area of application sealing level*				
		BG 1	BG 2			
65/6-20mm 75/6-20mm 85/6-20mm 95/6-20mm	48 – 64mm 58 – 74mm 68 – 84mm 78 – 94mm	6–20 mm	6–27 mm			
65 / 8 - 33 mm 75 / 8 - 33 mm 85 / 8 - 33 mm 95 / 8 - 33 mm	48 – 64mm 58 – 74mm 68 – 84mm 78 – 94mm	8 – 33 mm	8–43 mm			

\* Movement of the components and temporary changes of length of the existing joints should be taken into account when determining the right tape size. Installation depths of the U-recess beyond these areas of application can be reduced using suitable insulation materials.

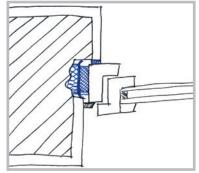
In accordance with the RAL requirement, the multifunction joint sealing tape has been tested to DIN 18542:2009 for external sealing according to BG 1 and for room-side sealing according to BG R.



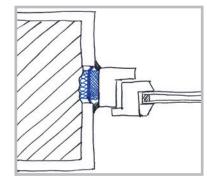




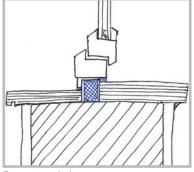
Uneven rebate at the side (monolithic masonry)



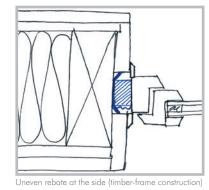
Checked rebate at the side (monolithic masonry)

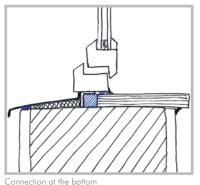


Uneven rebate at the side (monolithic masonry)









#### **Quality characteristics**

- Simple and reliable fitting in old buildings
- Complies with Energy Saving requirements and the principles of the RAL "Installation guide"
- 3-level seal using only one product
- Tested according to RAL requirement BG 1 / BG 2 and BG R
- Reduces convective heat loss
- Clean processing without material residue
- High flexibility and application reliability even with joints of different depths
- Can be combined with mastic sealing materials for colour finish and/or suitable cover strips.
- Installation independent of temperature and the weather
- No change in tried-and-trusted installation processes required for renovation work

	Windows   Façade   Roof   Classification according to DIN 18542							Can be combined	Can be combined	Can be combined
					External use Internal use			with	with	with
Outer seal	Thermal insulation	Inner seal			BG 1	BG 2	BG R	sealing materials	cover strips	EWIS
•	•	•			•	•	•	•	•	•



# Our "multi-talent" – ISO-BLOCO ONE

ISO-BLOCO ONE is a modern multifunctional joint sealing tape which combines all 3 sealing levels in one product. The extremely low a-value of 0.00 makes the pre-compressed tape 100% airtight and vapour-dampening on the inside. This allows convective heat losses to be reduced significantly, saving considerable amounts of heating energy. The tape has very good thermal and acoustic insulating values in the middle functional area and a pelting rain resistance of more than 1,000 Pa in the weather protection level, much higher than the minimum requirements which are 600 Pa.

In addition, it has an optimum vapour diffusion gradient from the inside to the outside (50:1) which makes the effective transportation of humidity to the outside possible, enabling joints to dry quickly. It thus complies with the RAL principle "more airtight inside than out".

ISO-BLOCO ONE has the RAL quality mark and has BG 1 classification for outer insulation and BG R classification for room-side sealing required by both DIN 18542:2009 and RAL "Installation guide".



The "all-in-one tape" unites all the demands on fitting in line with Energy Saving and RAL requirements in one single product and is especially suitable for the safe, straightforward, time and energy-saving sealing of window and door connections.

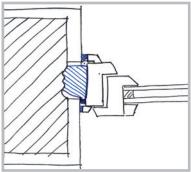


tape width x	window con-	recommended	carton
area of application	struction depth	joint width *	(metres)
54/2 – 12mm	60 mm	2 – 12 mm	210,0
64/2 – 12mm	70 mm		180,0
74/2 – 12mm	80 mm		150,0
82/2 – 12mm	90 mm		120,0
54/3–18mm	60 mm	3–18 mm	140,0
64/3–18mm	70 mm		120,0
74/3–18mm	80 mm		100,0
82/3–18mm	90 mm		80,0
54 / 5 – 30mm	60 mm	5 – 30 mm	84,0
64 / 5 – 30mm	70 mm		72,0
74 / 5 – 30mm	80 mm		60,0
82 / 5 – 30mm	90 mm		48,0

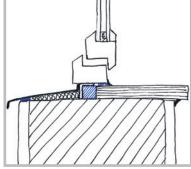
\* Movement in structural elements and temporary longitude changes are to be taken into account by the max. joint width.



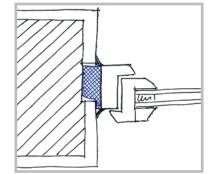




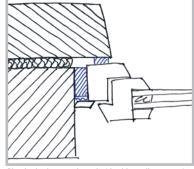
Uneven rebate at the side (monolithic masonry)



Connection at the bottom



Uneven rebate at the side (monolithic masonry)



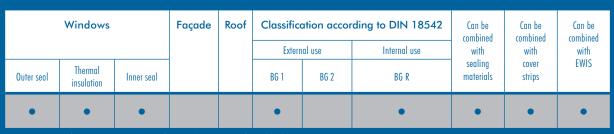






#### **Quality characteristics**

- 3-level-sealant with just one product
- Resistant to driven rain in excess of 1000 Pa (ift 105 35450)
- Optimal outwards vapour diffusion
- Inner air-tightness reduces convective heat loss
- High cost advantage thanks to time saved during fitting
- Fitting reliability thanks to wide area of application for joints
- Installation independent of temperature and the weather
- Sealing of different joints with only a few tape dimensions
- In line with Energy Saving requirements and RAL quality fitting requirements
- BG 1 and BG R tested according to DIN 18542:2009
- Suitable for passive house construction



# Our "foreman" – **ISO-BLOCO ONE CONTROL**

The multifunction joint sealing tape ISO BLOCO ONE CONTROL is encapsulated with a special tear-open cover which guarantees that the tape retains its pre-compression even after the roll has been opened and pre-fitted to the window frame. In contrast to classic pre-compressed sealing tapes, expansion is only triggered after the window has been fitted. This means that the tape can be pre-fitted efficiently and under controlled conditions before transport to the construction site. Window fitting can be carried out later without any rush, independently of temperature and weather conditions.

> The innovative pre-fitted tape has three functional areas. On the outside, it has a pelting rain resistance of more than 1,000 Pa for particularly good weather protection, in the middle area it ensures reliable thermal and acoustic insulation and on the inside it is 100% airtight and vapour-dampening. It thus contributes to the reduction of convective heat loss in accordance with Energy Saving requierments. In addition, it has an optimum vapour diffusion gradient from the inside to the outside (50:1). This means that any humidity that collects in the joint can dry out to the outside quickly, avoiding structural damage and mould caused by humidity.



ISO-BLOCO ONE CONTROL is suitable for all common frame materials made of PVC, aluminium and wood. It is usually fixed to the frames of PVC and aluminium windows using a clip fastening. The ISO-TOOL CLIP assembly tool is used to clip the sealing system securely into the grooves in the window profiles, mechanically fixing it to the window frame. The ISO-TOOL CUT corner tool ensures that the corner loops are shaped reliably. The pre-fitted tape is also available with one or two high-quality butyl adhesive tapes for use with slim profiles under 65 mm overall depth and for wooden windows.



#### A: ISO-BLOCO ONE CONTROL (CB) with clip fixing

B: ISO-BLOCO ONE CONTROL (BT) with self-adhesive butyl fixing (1-BT) with one butyl adhesive strip in the middle (2-BT) with two butyl adhesive strips on the outer edges

<b>N</b>	/	/		0	

	tape widths	window construction depth *	recommended joint width **
60-94 mm <sup>+++</sup> 60-96 mm 6-20 mm	60–94 mm***	60–96 mm	6–20 mm
60-94 mm*** 60-96 mm 8-33 mm	60-94 mm***	60–96 mm	8–33 mm

Check the compatibility list.

Movement of the components and temporary changes of length of the existing joints should be taken into account when determining the right tape size.

Available tape widths correspond to current price lists.

#### Accessories

- ISO-TOOL CLIP for quick and easy pre-fitting on PVC and aluminium windows frames
- ISO-TOOL CUT special blade for creating reliable corners



#### ISO-BLOCO ONE CONTROL Sealing solution 11

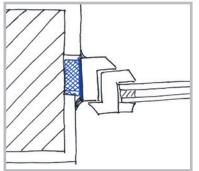




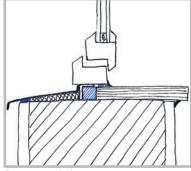
OUTSIDE

rain tight

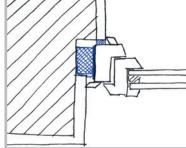




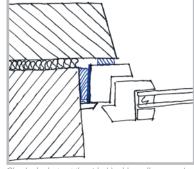
Uneven rebate at the side (monolithic masonry)



Connection at the bottom



Checked rebate at the side (monolithic masonry)



Checked rebate at the side (double-wall masonry)



- Cost advantage and time saving thanks to convenient pre-fitting
- Precisely timed tape activation for controlled expansion
- 3-level seal using only one product in one working step
- Resistant to driving rain to a minimum of 1.000 Pa
- Inner air-tightness reduces convective heat loss
- Optimum transportation of humidity to the outside
- Installation independent of temperature and the weather
- Suitable for all frame materials
- Complies with Energy Saving requirements and the principles of the RAL "Installation guide"
- BG 1 and BG R tested according to DIN 18542:2009
- Suitable for passive house construction

	Windows		Façade	Roof	Classifica	ation accor	ding to DIN 18542	Can be combined	Can be combined	Can be combined
					External use Internal use		with	with	with	
Outer seal	Thermal insulation	Inner seal			BG 1	BG 2	BG R	sealing materials	cover strips	EWIS
•	•	•			•		•	•	•	•



# Our "all-rounder" – ISO-BLOCO 600 PREMIUM EDITION

ISO-BLOCO 600 is an impregnated PU joint sealing tape of the stress group BG 1. This means the tape fulfils the maximum requirements and can be used without protection in direct weather exposed areas. Providing a seal against pelting rain, wind and UV rays are the strengths of ISO-BLOCO 600. The optimum building connection situations for this all-rounder are in brick, stone or concrete block walls, as well as in timber frame constructions.

ISO-BLOCO 600 is also used for sealing conservatory structures and for dormer windows. When an EWIS is applied it seals the insulating façade to the window elements, resisting the pelting rain. ISO-BLOCO 600 can also be used indoors. When compressed slightly more than the minimum recomendation it fulfils the requirements of stress group BG R which stands for room-side sealing. In this case, the tape has an a-value of  $\leq 0.1$ , which means it even meets the requirements for air-tightness for joints in passive houses.

A further special area of application for ISO-BLOCO 600 are joints between prefabricated concrete components. In the past, extruded sealing materials often revealed that they did not provide a permanent seal in the event of joint movement, which meant the repeated renewal of the seal was necessary. ISO-BLOCO 600 can be fitted in such joints, both new and existing buildings, providing a permanently elastic seal, and good long term reliability.



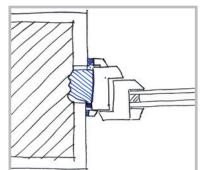
dimension joint, depth x width	recommended joint width *	carton (metres)
8/1-2mm 10/1-2mm 15/1-2mm	1 – 2 mm	740,0 600,0 400,0
10/1-4 mm 15/1-4 mm 20/1-4 mm	1 – 4 mm	390,0 260,0 195,0
15/2-6 mm 20/2-6 mm 30/2-6 mm	2 – 6 mm	240,0 180,0 120,0
15/4–9 mm 20/4–9 mm 30/4–9 mm	4 – 9 mm	160,0 120,0 80,0
15/5–12 mm 20/5–12 mm 30/5–12 mm	5 – 12 mm	112,0 84,0 56,0

dimension joint, depth x width	recommended joint width *	carton (metres)
15/6–15 mm 20/6–15 mm 30/6–15 mm	6 – 15 mm	86,0 64,5 43,0
20/9–20 mm 25/9–20 mm 30/9–20 mm	9–20 mm	49,5 39,6 33,0
25/11-25 mm 30/11-25 mm	11–25 mm	31,2 26,0
35/18-34 mm 40/18-34 mm	18–34 mm	26,4 23,1
40 / 24 – 42 mm 50 / 24 – 42 mm	24–42 mm	18,2 15,6

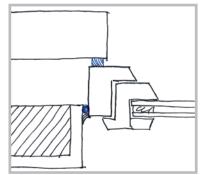
\* Movement in structural elements and temporary longitude changes are to be taken into account by the max. joint width.



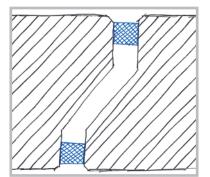
#### ISO-BLOCO 600 PREMIUM EDITION Sealing solution 13



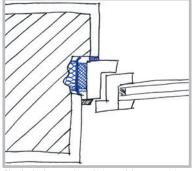
Uneven rebate at the side (monolithic masonry)



Checked rebate, faced with brickwork/block work



Solid wall construction joint (schematic layout)



Checked rebate at the side (monolithic masonry)





#### **Quality characteristics**

- Meets the requirements of DIN 18542:2009 BG 1
- Complies with the requirements of Energy Saving requirements
- Application security thanks to high expansion ability and wide area of application for joints
- Provides permanent protection from pelting rain, drafts, wind, dust and splashwater
- Open to vapour diffusion, high drying effect, promotes a healthy internal climate
- Permanently elastic, with high permanent movement absorption
- Sound and thermal insulation
- Can be painted over using standard emulsion paints
- CE-certified (ETA-07/0072)
- Constant, DIN-conform quality regularly tested by external institutes
- 10 year performance guarantee\*

	Windows		Façade	Roof	Classifica	ation accor	ding to DIN 18542	Can be combined	Can be combined	Can be combined
					External use Internal use			with	with	with
Outer seal	Thermal insulation	Inner seal			BG 1	BG 2	BG R	sealing materials	cover strips	EWIS
•		•	•	•	•		•	•	•	•

See page 22 / 23 tor a complete overview of our sealing products for old buildings. \* Under manufacturer's conditions (availalbe on reauest). ISC

# Our "insulater" – **ISO-BLOCO HF**

ISO-BLOCO HF is a pre-compressed impregnated sealing tape which can be used as an insulating plane in window connections or in connection joints between structural elements, as insulation and as sound protection. In addition, it is also excellently suited as a sealing material border or joint sealing tape for internal walls.

Thanks to their special product characteristics, impregnated sealing tapes are becoming more and more important for the insulation of building connection joints.

When renovating old buildings in particular, tight joint structures are often found which are very difficult to insulate using conventional insulating material such as PU spray foam and mineral wool. Problems often result, as cavities cannot be filled completely, or the insulating material collapses over the years. This can be avoided

using ISO-BLOCO HF, as the pre-compressed tape is fitted to the window frame, and the window is fitted into the masonry. Then the tape expands completely into the building joint, remaining permanently functional.

In addition, the low-emission insulating tape is free of halogens and isocyanate, making it absolutely safe for craftsmen and building inhabitants alike.

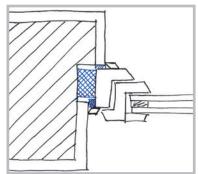


\* Movement in structural elements and temporary longitude changes are to be taken into account by the max. joint width.

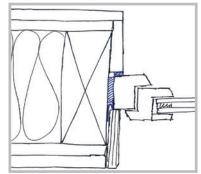
#### Supplementary products

- **ISO-BLOCO 600** impregnated and pre-compressed PUR sealing tape for sealing windows resistant to driving rain
- **ISO-CONNECT** window connection foil for professional window sealing according to Energy Saving requirements and RAL "Installation guide"

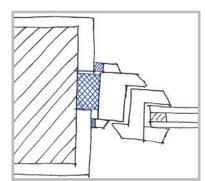




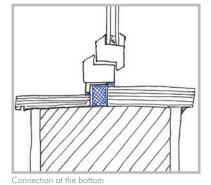
Checked rebate at the side (monolithic masonry)

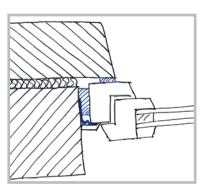


Uneven rebate at the side (timber-frame construction)

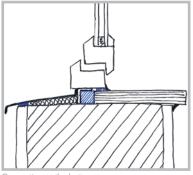


Uneven rebate at the side (monolithic masonry)





Checked rebate at the side (double-wall masonry)



#### Connection at the bottom

#### **Quality characteristics**

- Particularly ideal as a sealing and insulation layer in conjunction with the iso<sup>3</sup>-Window Sealing System
- Permanently elastic, providing a constant high level of acoustic and thermal insulation over time
- Open to vapour diffusion
- High adhesive force during fitting
- Compatible with all established sealant compounds
- Free of isocyanates and halogens
- Expansion even at low temperatures
- Self-adhesive on one side, making it easier to fit



	Windows         Façade         Roof         Classification according to DIN 18542						Can be combined	Can be combined	Can be combined	
					Extern	External use Internal use		with	with	with
Outer seal	Thermal insulation	Inner seal			BG 1	BG 2	BG R	sealing materials	cover strips	EWIS
	•		•	•				•	•	•

# Our "adaptation artist" – ISO-CONNECT VARIO SD

ISO-CONNECT VARIO SD is suitable both for outdoor use as weather protection and for indoor use as an airtight layer to separate internal and external climate. The special feature of this unusual window connection foil is its humidity-regulating functional mechanism which results in a high drying-out effect in the window connection joint all year round. This means that only one product is required for two applications!

The special sealing membrane allows the foil to react by varying its sd-value to the different temperature gradients between indoors to outdoors, or, outdoors to indoors depending on the season. During the heating period, temperatures outdoors are usually lower than those indoors. In contrast, temperatures outdoors are usually higher than those indoors in the summer. This results in a different direction of flow for the vapour diffusion pressure in the joint – because air humidity always condenses from the warm to the cold area.



Versions	Dimensions
A: ISO-CONNECT VARIO SD (SK) with self-adhesive	70 mm 90 mm 145 mm 180 mm 235 mm 290 mm
B: ISO-CONNECT VARIO SD (SK-BT Mono) with single-side SK + butyl adhesive strip	70 mm
C: ISO-CONNECT VARIO SD (SK-BT Duo) with alternating SK + butyl adhesive strip	90 mm 145 mm
Customised solutions on request.	

Thanks to the variable sd-value, humidity transportation from the joint to the outside works just the same as to the room side, no matter what the weather. This is important so that condensation can escape from the joint. In old building renovation in particular, the benefit of ISO-CONNECT VARIO SD foil is that

The system components of the iso<sup>3</sup> window sealing system save time and money. Thanks to their versatile use, purchasing and storage cost less, and there is no danger of mixing up foils for

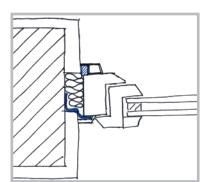
old residual humidity can still escape.

internal and external use.

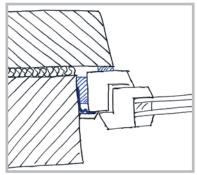
#### Supplementary products

- ISO-TOP FLEX ADHESIVE SP, SP+ and XP for wind and air-impermeable bonding of window connection foils
- **ISO-BLOCO 600** impregnated and pre-compressed PUR-sealing tape for reliable window sealant against driving rain
- ISO-BLOCO HF impregnated PUR-tapes for thermal and acoustic insulation between window frames and walls

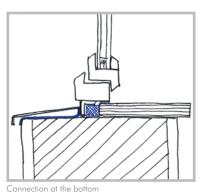


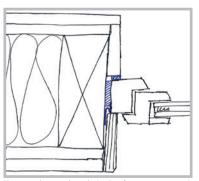


Uneven rebate at the side (monolithic masonry)



Checked rebate at the side (double-wall masonry)





Uneven rebate at the side (timber-frame construction)





#### **Quality characteristics**

- Only one product for internal and external sealing levels
- High drying effect of the joint thanks to humidity-regulating functional mechanism
- Avoids fitting errors caused by mix-ups
- Purchasing and storage cost less
- Special fleece surface, easy to plaster and glue over
- With self-adhesive and butyl self-adhesive strips for efficient fitting



Low sd-value = High drying effect in the joint



	Windows		Façade	Roof	Classific	ation acco	rding to DIN 18542	Can be combined	Can be combined	Can be combined
					External use Internal use		with	with	with	
Outer seal	Thermal insulation	Inner seal			BG 1	BG 2	BG R	sealing materials	cover strips	EWIS
•		•						•	•	•

# Our "classic" – **ISO-CONNECT**

# ISO-CONNECT INSIDE / OUTSIDE CX and FD

ISO-CONNECT INSIDE / OUTSIDE CX and FD foils provide an extremely reliable building joint seal. Both the air-tightness and sd-values of the building construction foils have been optimally matched. This guarantees long term functionality, even with constant component movement.

The areas of application in old building renovation are widely varied. The foils can be bonded to various surfaces (e.g. wood or mineral substrates, such as concrete). A reliable sealing level can be formed by connecting to vapour barrier foils. In addition, the ISO-CONNECT FOILS can be plastered over or covered with plasterboard or wooden trims at a later date.

The foils can also be used optimally for the renovation of old buildings with retrofit EWI systems.



Product	Versions	Dimensions
ISO-CONNECT INSIDE / OUTSIDE FD	With self-adhesive strip (20 mm) on one side	70 mm 90 mm 145 mm 180 mm 235 mm 290 mm
ISO-CONNECT INSIDE / OUTSIDE CX	With 1 fitting adhesive strip on one side	70 mm 90 mm 145 mm 180 mm 235 mm 290 mm

CE

Product	Windows		Façade	Roof	Can be combined	Can be combined	Can be combined	
	Outer seal	Thermal insulation	Inner seal			with sealing materials	with cover strips	with EWIS
ISO-CONNECT INSIDE FD/CX			•			•	•	•
ISO-CONNECT OUTSIDE FD/CX	•					•	•	•

#### ISO-CONNECT INSIDE/OUTSIDE EPDM

EPDM window and façade sealing film has a special task in old building renovation. It is always used wherever special loads occur.

In addition to its extreme flexibility, the outstanding property of both the Inside and the Outside variant is high mechanical stability and tear resistance. ISO-CONNECT OUTSIDE EPDM is mainly used for sealing against standing water in the threshold area or for parapets on the outside under the window sill, as required by DIN 18195.

Connections to patios, mechanical attachment using aluminium strips and covering with gravel layers are special characteristics of the areas of application of ISO-CONNECT INSIDE / OUTSIDE EPDM.



ISO-CONNECT INSIDE EPDM is used to establish a vapour diffusion gradient according to the principle "more airtight inside than out" and for airtight sealing on the inside.

#### ISO-CONNECT HB-BAND

ISO-CONNECT HB-BAND is a very pressure-resistant sealing web which is mainly used with timber-frame construction between the ground beam and the ground masonry/floor plate as an anti-capillary layer. It is ideal for sealing against rising humidity and for airtight connection.

Delivery can be prepared with:

- 2 impregnated foam strips for compensating tolerances and irregular masonry surfaces
- 2 butyl self-adhesive strips for permanent fixing

CE

Product	Versions	Dimensions
ISO-CONNECT INSIDE / OUTSIDE EPDM	<ul> <li>A: ISO-CONNECT INSIDE / OUTSIDE EPDM</li> <li>B: ISO-CONNECT INSIDE / OUTSIDE EPDM (SK) with self-adhesive strips</li> <li>C: ISO-CONNECT INSIDE / OUTSIDE EPDM (BT) with butyl self-adhesive strips</li> <li>D: ISO-CONNECT INSIDE / OUTSIDE EPDM (SK-BT) with self-adhesive strips and butyl self-adhesive strips</li> </ul>	100 mm 150 mm 200 mm 300 mm 400 mm 500 mm
ISO-CONNECT HB-BAND	A: ISO-CONNECT HB-BAND basic version B: ISO-CONNECT HB-BAND (VK) with two impregnated foam strips (15 x 20 mm) C: ISO-CONNECT HB-BAND (VK-BT) with two impregnated foam strips (15 x 20 mm) and two butyl self-adhesive strips (20 mm)	100 mm 120 mm 140 mm 250 mm 250 mm 300 mm 400 mm

Customised solutions on request.

Product	Outer seal	Windows Thermal insulation	Inner seal	Façade	Roof	Can be combined with sealing materials	Can be combined with cover strips	Can be combined with EWIS
ISO-CONNECT INSIDE EPDM			•	•	•	•	•	•
ISO-CONNECT OUTSIDE EPDM	•			•	•		•	•
ISO-CONNECT HB-BAND	•		•	•		•		

# Our "tried and trusted" tapes – ISO-TOP and ISO-ZELL

#### ISO-TOP Flex-tape

ISO-TOP FLEX-TAPE with a hig tack acrylic emulsion adhesive on one side, which can be guided flexibly around curves. The tape fits snugly to smooth surfaces, ensuring airtight adhesion.

It is suitable for the reliable bonding of vapour barrier foils made from film, fleece or paper, and forms a secure connection between foil and surfaces such as e.g. concrete and brickwork. ISO-TOP FLEX-TAPE is also suitable for complete sealing in accordance with DIN 4108-7.

#### ISO-TOP POWER-TAPE

ISO-TOP POWER-TAPE is a natron kraft paper with a hig tack acrylic emulsion adhesive on one side. The tape is suitable for the airtight bonding of roof insulation sheeting in accordance with DIN 4108-7.

It is used particularly where an overlap connection is made between roof insulating sheeting and vapour barrier foils made from foil, fleece or paper.



Product	Windows		Façade	Roof	Can be combined	Can be combined	Can be combined	
	Outer seal	Thermal insulation	Inner seal			with sealing materials	with cover strips	with EWIS
ISO-TOP FLEX-TAPE					•		•	
ISO-TOP POWER-TAPE					•		•	

#### ISO-ZELL PE-TAPE AND FIX-TAPE

ISO-ZELL PE-TAPE and ISO-ZELL FIX-TAPE are versatile sealing and glazing tapes. They are made of self-adhesive, closed-cell polyethylene foam and stand out on account of their fine cell structure and special viscoelastic properties. These characteristics and a consistently high product quality make rational and safe solutions possible for a wide range of construction applications.

ISO-ZELL PE-TAPE and ISO-ZELL FIX-TAPE Are especially suitable for

- Sealing Insulating
- Cushioning 
   Vibration Control

#### ISO-ZELL **PE-CORD**

ISO-ZELL PE-CORD is a round profile seal which fulfils the requirements of DIN 18540 for expanded joint formation. It is made of closed-cell polyethylene foam and is suitable for sealing against draughts and other heat loss.

ISO-ZELL PE-CORD is used for the safe filling of building joints and stands out as it is compatible with all standard sealing materials. When used as a backer rod for sealing compounds, 3-sided adhesion is effectively eliminated.

ISO-ZELL PE-CORD is excellently suited as a stuffing and filling material for the sound insulation and sealing of:

- Cavety filling
- U-Profile glass sealing
- Connecting joints
   Construction and variable joints

Thanks to its water-repellent surface structure, ISO-ZELL PE-CORD can be used as filling material on both the inside and outside. The neutral product characteristics and closed surface also permit use with absorbent materials.



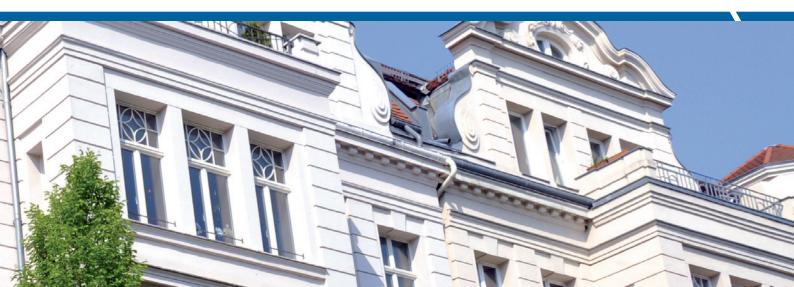
Outer seal	Windows Thermal insulation	Inner seal	Façade	Roof	Can be combined with sealing materials	Can be combined with cover strips	Can be combined with EWIS
•		•			•		
		•			•	•	
	seal	Outer Thermal insulation	Outer Thermal Inner	Outer seal     Thermal insulation     Inner seal       •     •       •     •	Outer seal     Thermal insulation     Inner seal       •     •       •     •       •     •	Outer seal     Thermal insulation     Inner seal     Seal     Can be combined with sealing materials       •     •     •     •       •     •     •     •	Outer seal     Thermal insulation     Inner seal     Seal     Can be combined with sealing materials     Can be combined with cover strips       •     •     •     •     •       •     •     •     •     •

# Sealing products – **for old building renovation**

Product		Façade		
	Outer seal	Thermal insulation	Inner seal	
ISO-BLOCO RENO	•	•	•	
ISO-BLOCO ONE	•	•	•	
ISO-BLOCO ONE CONTROL	•	•	•	
ISO-BLOCO 600	•		•	•
ISO-BLOCO HF		•		•
ISO-CONNECT VARIO SD	•		•	
ISO-CONNECT INSIDE FD/CX			•	
ISO-CONNECT OUTSIDE FD/CX	•			
ISO-CONNECT INSIDE EPDM			•	•
ISO-CONNECT OUTSIDE EPDM	•			•
ISO-CONNECT HB-BAND				•
ISO-TOP FLEX-TAPE				
ISO-TOP POWER-TAPE				
ISO-ZELL PE-CORD	•		•	
ISO-ZELL PE-TAPE AND FIX-TAPE			•	



Roof	Classifica	ition accor	ding to DIN 18542			
	Extern	al use	Internal use	Can be combined		Can be combined
	BG 1	BG 2	BG R	with sealing materials	with cover strips	with EWIS
	•	•	•	•	•	•
	•		•	•	•	•
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