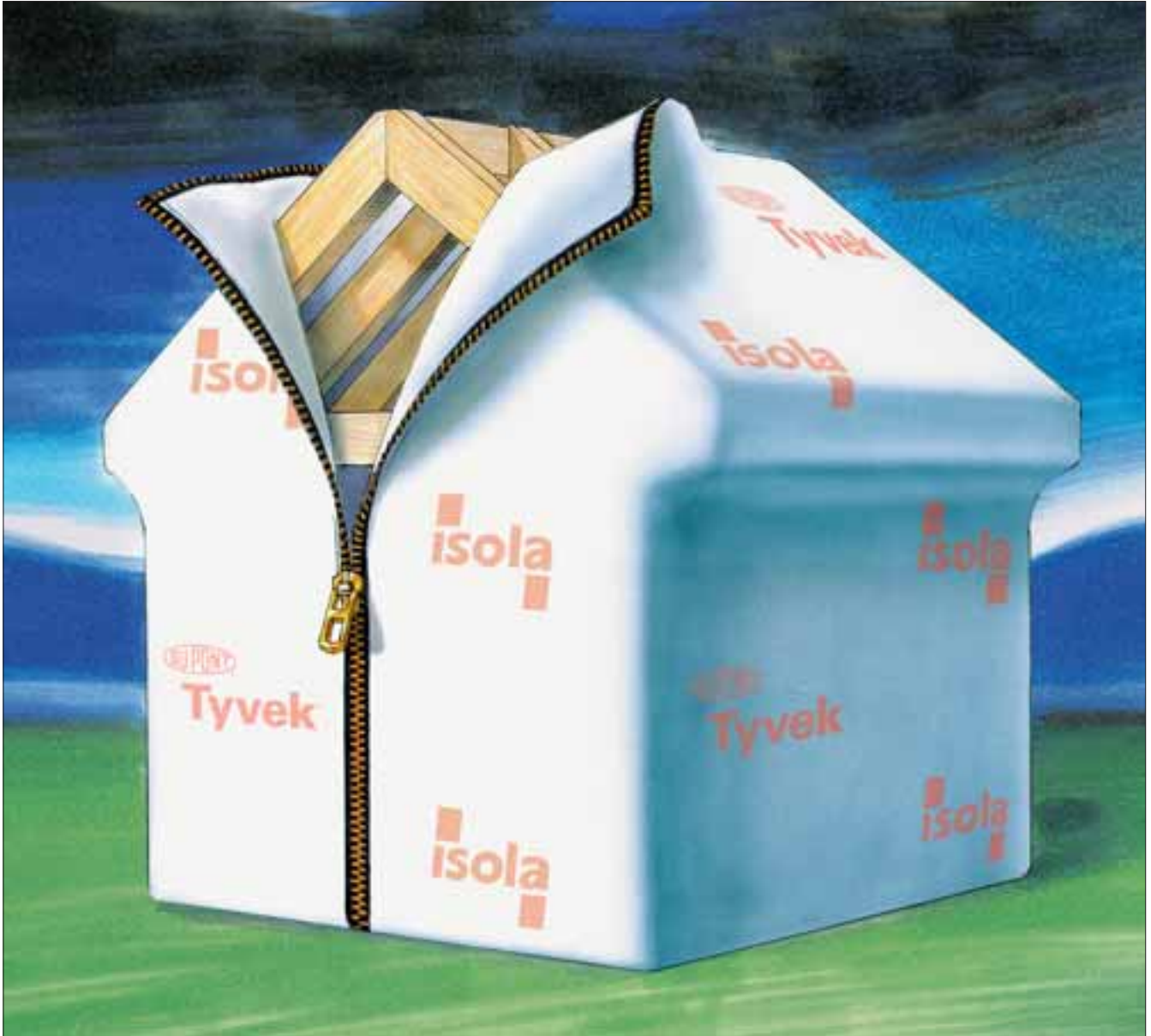


# *Isola Wall System*

*Isola Sill Membrane, Isola Stay, Isola Mouse Strip  
and Soft Wind Barrier Roof/Wall*



*Watertight and breathable – reliable details*

# Isola Wall System. Reliable windp

## Isola Sill Membrane

Sill Membrane is part of Isola Wall System, which also includes Soft Wind Barrier, Stay and Mouse Strip. The system is a good complete solution for fast, functional sealing of wall structures. Sill membrane replaces the traditional solution involving insulating strips, footing felt and sill felt on the external footing top course. Isola Footing Felt Thick or Thin should still be used on internal top courses.

Sill membrane offers major advantages:

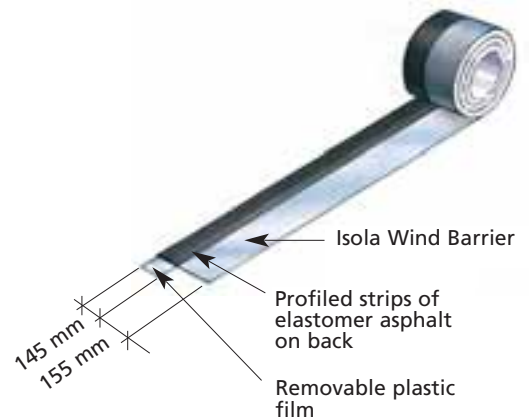
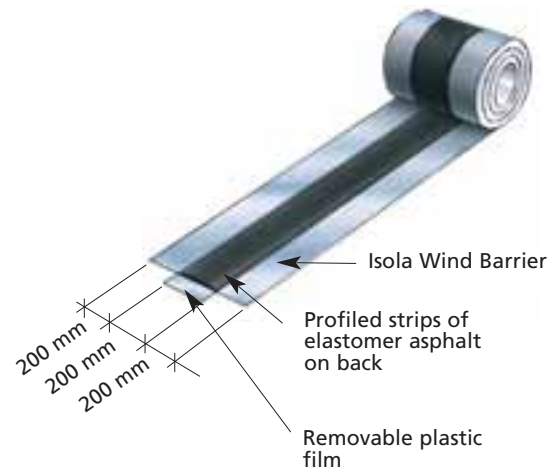
- Reliable sealing
- Sticks to footing top course

- Equalises pressure
- Repels moisture from the footing
- High tear strength
- The wind barrier turn-ups are diffusion-permeable. Any moisture is expelled.
- Three products in one

Isola Sill Membrane consists of a wind barrier of calendered polyethylene felt coated with a strip of SBS elastomer asphalt. Sill Membrane is laid with the elastomer strip facing down. The membrane comes in two versions – see sketch.

The film has to be removed from the back when the membrane is laid.

This ensures adhesion and a reliable seal with the base. The combination of elastomer asphalt and wind barrier provides an impermeable seal between the footing, joist floor and wall. The wind barrier is diffusion-permeable. Sill Membrane with an elastomer width of 14.5 cm is designed for sill structures, prefabricated wall elements and concrete floors. Sill Membrane with an elastomer width of 20 cm is designed for structures with a joist floor on a footing top course. See also separate installation instructions and NBI Technical Approval No. 2044.



# roofing and vapour diffusion – good

## Isola Stay

Isola Stay provides effective bracing for wall structures that is every bit as good as bracing panels. The stay provides temporary bracing during construction and ensures permanent bracing of the wall structure. Isola Stay provides reliable and effective bracing – and is easy to install. The stays should be attached to studs and noggins and secured with four 28/90 nails at each fastening point. The stays are made of 1 mm galvanised steel and weigh approx. 1.5 kg. Standard length 3.1 m. Hole indications for installation can

be made simply by hitting the nail head where the nail is to go.

The stays should be fitted in pairs, one in each direction on the outside of the stud wall. They are normally positioned across three bays, running up into the corners at an angle of approx. 50°. In the case of unconventional structures, the number and positioning of the stays must be assessed on a case-by-case basis, but at least two stays must be used per wall element. See also separate installation instructions and NBI Technical Approval No. 2043.

## Isola Mouse Strip

Isola Mouse Strip prevents mice from getting in under board cladding while ensuring ventilation to the back of the cladding.

### Vertical cladding:

Fit the bottom tie in the usual way. The part of the strip covered by the bottom tie presses the mouse strip flat. When the top tie is fitted, the divided, profiled part of the strip is pressed down, with the result that the gap between the top and bottom ties is covered by the mouse strip. If slats are used behind the studding, pest blocks or two sets of Mouse Strip must be used.



### Horizontal cladding:

Fit Isola Mouse Strip directly on the wind barrier. Fit studding, clamping batten and cladding in the usual way. Isola Mouse Strip is part of Isola Wall System, but can also be used in other solutions.

# overall economy

## Soft Wind Barrier Roof/Wall (width 1.30 m and 2.80 m)

Soft Wind Barrier is the most diffusion-permeable wind barrier on the market.

When installed correctly, Soft Wind Barrier makes wall structures with joints far more windproof than required by official standards and guidelines. Vapour diffusion is 20 times better than required by NBI in Building Detail Sheet 573.121 (Materials for air- and vapour-tightening).

The product comes in two widths, 1.30 m for vertical installation and 2.80 m for horizontal installation to full wall height. Full-height installation means fewer joints and extra rapid progress.

Soft Wind Barrier has a number of excellent properties:

- A "breathable" product. Allows moisture in the wall to dry
- Exceeds windproofing standards
- Lightweight
- Light and flexible to install – even in the cold
- Not affected by precipitation during installation
- High tear strength – withstands rough treatment
- Very quiet
- Textured surface – no reflection
- Nails well
- Good overall economy

Soft Wind Barrier ensures an impermeable building without extra draughtproofing at joints, doors, corners, etc.

Trials carried out at NBI with the wind barrier fully installed in a wall show that the joints have a self-sealing effect. The wind trials show that a finished wall with joints is not as windproof as the wind barrier material itself. Clamp the overlap with a slat/clamping batten to ensure an airtight construction. In the case of walls built on a platform, the element weight is reduced substantially compared with panel products. The wind barrier reduces draughts during construction and provides a comfortable working environment.

The product lets light in even if the windows and doors are covered. See also separate installation instructions and NBI Technical Approval No. 2043.



## Isola Wind Barrier tape



This tape should be used to repair damage and tears in the wind barrier and Pro/Pro Super. In the case of large tears it is advisable to use tape on both sides of the wind barrier. The tape should always be fixed to the white wind barrier portion of the products. It can be applied to both sides of Soft Wind Barrier.

The wind barrier must be dry when the tape is applied. Isola Wind Barrier tape can also be used to seal horizontal overlaps on Soft Wind Barrier used on walls and roofs.

Width 75 mm.  
Length of roll 25 m.



# Functional sealing and sturdy bracing of the structure

Isola Wall System is made up of five products:

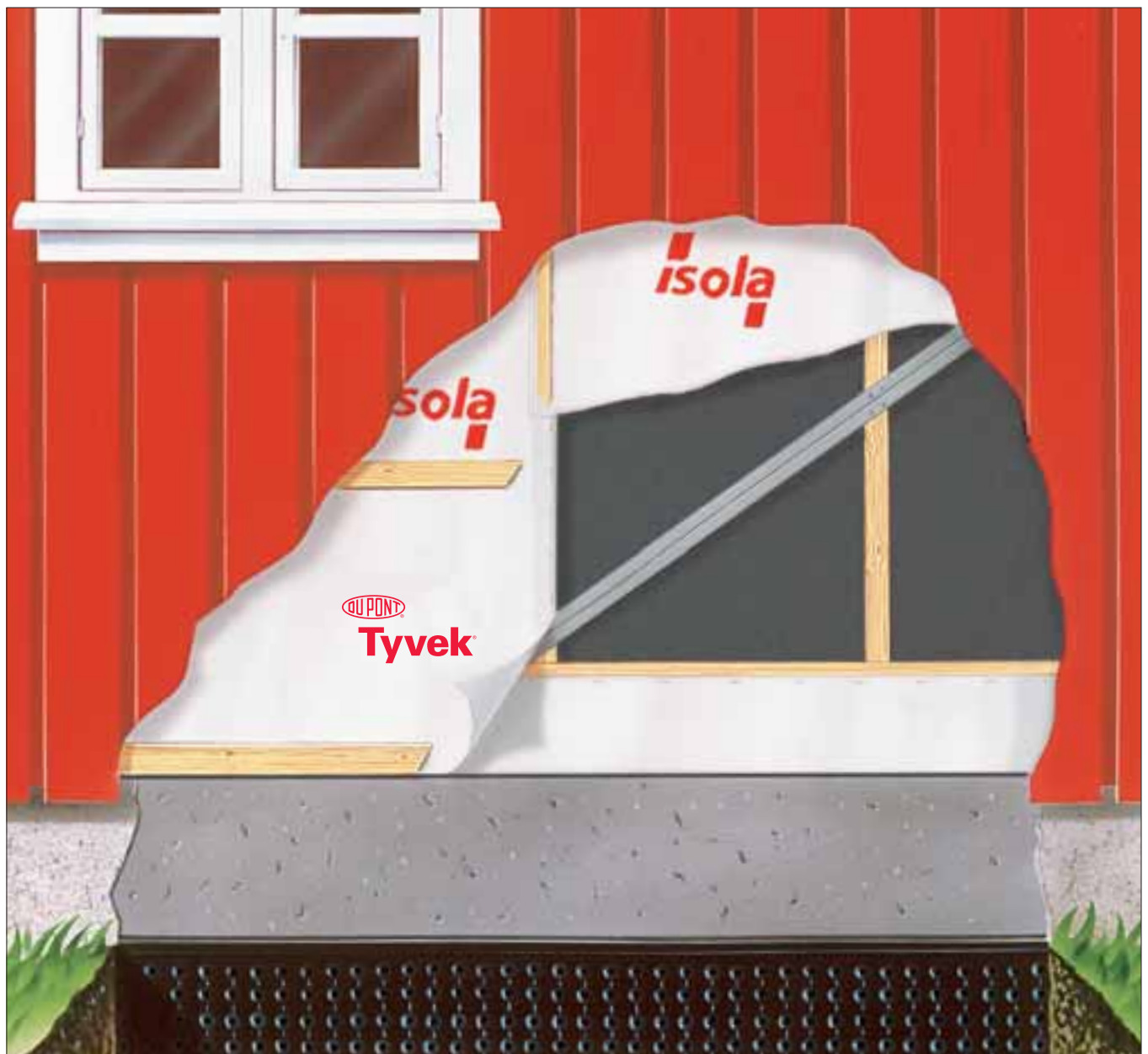
- Isola Sill Membrane
- Isola Stay
- Soft Wind Barrier Roof/Wall
- Isola Mouse Strip
- Isola Wind Barrier tape

The system makes a house impermeable from the footings to the eaves in record time. Sill Membrane

replaces traditional footing felt, sill felt and insulating strips. The product provides a functional solution between footing, joist floor and wall. Stay braces studwork – and makes other bracing completely unnecessary. Wind Barrier is easy to install and has excellent properties. Its windproofness is more than twice that required by NBI, while no other product can compete with its vapour diffusion.

Wind Barrier is installed directly over all openings. This provides an impermeable construction around doors and windows.

Isola Wall System is a reliable solution that complies with energy performance requirements thanks to the product's windproofing properties when combined with clamped joints and impermeable connections.



# Isola Wall System

## Technical Approvals for Isola Wall System

Soft Wind Barrier Roof/Wall, Isola Stay and Isola Sill Membrane have been tested by the Norwegian Building Research Institute (NBI). The products have been tested and checked in accor-

dance with Norwegian Standards and other test methods recommended by NBI. Based on these tests, NBI has drawn up a Technical Approval for each product. NBI Technical Approval is a useroriented

statement on the products that provides information on applications and important details. Technical Approval also serves as documentation for the properties of the product.

| Isola Sill Membrane NBI Technical Approval No. 2044 |                  |   |                              |   |              |
|---|------------------|---|------------------------------|---|--------------|
| Type  | Full with        | Width of asphalt coating                    | Nominal thickness of asphalt | Roll weight                               | Roll length  |
| 14,5 cm<br>20,0 cm                                  | 300 mm<br>600 mm | 145 mm<br>200 mm                            | 4 mm<br>4 mm                 | 9,5 kg<br>11,6 kg                         | 17 m<br>17 m |
| Properties  |                  | Measured value                              |                              | Requirement                               |              |
| Vapour diffusion of wind barrier portion            |                  | 4,17·10 <sup>-9</sup> kg/m <sup>2</sup> hPa |                              | 1·10 <sup>-10</sup> kg/m <sup>2</sup> hPa |              |

The asphalt coating is impermeable to air, water and water vapour, as well as forming a self-adhesive bond with footings.

| Wind Barrier tape   |            |                  |        |                     |     |
|---------------------|------------|------------------|--------|---------------------|-----|
| Storage temperature | +10°-+30°C | Max storage time | 1 year | Working temperature | >0° |
| Width               | 75mm       | Roll length      | 25 lm  |                     |     |

| Isola Stay<br>NBI Technical Approval No. 2043                     |  | Length<br>(Can be supplied in other lengths to order) | 3,1 m         | Step height                    | 12 mm  |
|---|--|---|---------------|--------------------------------|--|
|   |  | Thickness   | 1,0 mm ± 10 % | Steel quality                  | St 02 Z 275 g/m <sup>2</sup>                 |
|   |  | Weight approx.  | 1,5 kg        | Fastenings:                    | 4 x 28/90 square nail<br>per fastening point |
|   |  | Width   | 50 mm         | Installation angle: approx.    | 50°  |
| Properties  |  | Measure of value                                      |               | Test method                    |  |
| Mean ultimate load for a pair of stays (structure)                |  | 6,1 kN  |               | ASTM E 72<br>NBI Report 0 2369 |  |
| Mean ultimate load for a pair of stays with interties (structure) |  | 8,1 kN  |               |                                |  |
| Tensile strength of stay  |  | 400MPa  |               | Norsk Hydro NS 10100           |  |
| Tensile force of stay   |  | 28 kN   |               | Norsk Hydro NS 10100           |  |

| Soft Wind Barrier Roof/Wall<br>NBI Technical Approval No. 2043<br>Soft Wind Barrier Roof/Wall<br>Material and construction data for Isola wind barriers determined by type testing |                                | Dimensions  |  |
|--|--------------------------------|---|--|
|  |                                | Soft Wind Barrier Wall<br>1,3 x 50 m/100 m<br>2,8 x 50 m/100 m<br>3,0 m (supplied to order) | Soft Wind Barrier Roof<br>1,3 m x 50 m/100 m |
| Properties   | Value                          | Unit  | Test method                                  |
| Air tightness, material  | 0,006                          | m <sup>3</sup> /m <sup>2</sup> hPa  | Equivalent to NS 3261                        |
| Air tightness, construction  | -                              | m <sup>3</sup> /m <sup>2</sup> hPa  | NS-EN 12114                                  |
| Vapour resistance  | 0,13·10 <sup>9</sup>           | m <sup>2</sup> sPa/kg   | NS-EN ISO 12572                              |
| Sd value   | 25                             | mm equivalent air layer   | (50/93 % RH, 23°C)                           |
| Vanndamp-permeans  | 7,8·10 <sup>-9</sup>           | kg(m <sup>2</sup> ·s·Pa)  |  |
| Water tightness (2 kPa)  | Impermeable                    | -   | NS-EN 1928                                   |
| Tensile strength   | - Longitudinal<br>- Transverse | 136<br>134  | N/50 mm<br>N/50 mm                           |
| Elongation at break  | - Longitudinal<br>- Transverse | 12<br>18  | %<br>%                                       |
| Nail resistance  | - Longitudinal<br>- Transverse | 45<br>45  | N<br>N                                       |
| Weight   |                                | 59  | g/m <sup>2</sup>                             |



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Dry and healthy buildings