



*hertalan installation guidelines*

**hertalan**  
the Waterproof Solution

## **Foreword**

In the market for sealed roofing systems EPDM continues to be regarded as an innovative product. That is fairly surprising considering that EPDM membranes have been used all over the world since the end of the 60's as a roof covering. That makes it one of the most reliable products to choose.

As Europe's first producer of EPDM membranes, Hertalan has been offering cutting-edge quality in durable roof and wall systems for over four decades. Hertalan supplies a 100% ecological material that is resistant to UV, ozone and other meteorological effects and which features an exceptionally long life cycle.

Despite the undisputed quality of its roof and wall systems, Hertalan continues to focus on improvements. With our own R&D facilities we are still able, even after 40 years, to innovate and to produce market-compliant systems. As an experienced project supervision partner we have all the knowledge required to provide a complete service, from concept to completion. As the central point of contact Hertalan offers a full-service package, not only at implementing level but also in areas including cost control for clients or the creation of aesthetic added value for the architect.

It therefore is and remains important to us to get into contact with you. To convince you of our knowledge and added value and to build up an ongoing relationship.

This folder contains (among other things) our installation guidelines, system sheets and general information. These supersede all previous Hertalan installation guidelines and data sheets and have been adapted to the current state of technology. We request that you contact our office in Mansfield Nottinghamshire for the use of Hertalan in all systems that are not listed.

*Hertalan UK updates the installation guidelines online. Amendments and additions can be downloaded from our website [www.hertalan.co.uk](http://www.hertalan.co.uk) You can apply via our website for a login code!*

Hertalan UK  
Unit 4A Isabella Court  
Millennium Business Park  
Mansfield Nottinghamshire NG 19 7 JZ  
Phone: 01623 62 72 85  
email [info@hertalan.co.uk](mailto:info@hertalan.co.uk)  
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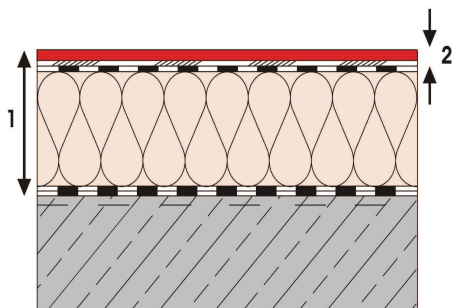
## Hertalan EPDM roof systems

Hertalan has an extensive product portfolio of EPDM roof systems and accessories which are suited for all types of roof surface and waterproofing systems, varying from traditional roofs to special roofing constructions.

With *hertalan easy cover* and *hertalan easy weld* Hertalan offers you a comprehensive advanced range of roof covering systems, products and accessories. These systems are suitable for every type of roof: fully and partial bonded, ballasted, mechanically fixed.

Depending on the roof system, there are following options:

- 1 *hertalan easy cover***  
unreinforced vulcanised EPDM roofing sheet or prefabricated membrane.
- 2 *hertalan easy cover FR***  
fire retardant unreinforced vulcanised EPDM roofing sheet or prefabricated membrane
- 3 *hertalan easy weld***  
fire retardant unreinforced vulcanised EPDM roofing sheet provided with alternating top and bottom side side TPE Welding band.
- 4 *hertalan easy weld MF***  
fire spreading resistant unreinforced vulcanised EPDM roofing sheet provided with alternating top and bottom side TPE Welding band.  
Special for mechanically fixing.



1 = Roof system construction  
2 = Roof system

## Universal application instructions

For the application of Hertalan EPDM roof systems product specific guidelines exists. These must be followed to achieve a result that is perfectly waterproof and airtight.

- Irrespective of which Hertalan roof system is applied a secure fixation onto the roof eaves and upstands must be ensured. Roof eaves, details and upstands must be finished airtight.
- If a roof surface is to be covered with more than one roof sheet or membrane, an overlap of the Hertalan materials must be made.
- Hertalan EPDM roofing products are applied without naked flame and at a minimum surrounding and material temperature of 5°C.
- All components of the Hertalan systems are adapted to each other and form a complete system. Only Hertalan approved adhesives and sealants are to be applied.
- Every substrate on which the Hertalan EPDM roof systems are applied, must be smooth, dry, clean and free of oil, grease and sharp objects.
- Hertalan advises -if necessary – to apply a vapour control layer and thermal insulation.
- A *hertalan easy cover* roofing sheet or prepared part of ideally should be unrolled at least 15 minutes for application at the roof and stay like that to achieve a tension free product. The product must be applied tension free.
- It is important to apply Hertalan EPDM roof systems exclusively with clean materials and appropriate tools.

- Existing roof surfaces must be checked to ensure there is a proper connection with roof construction.
- In case of a bitumen surface all loose parts of bitumen, blisters and folds must be removed to achieve a smooth and sound surface.
- Hertalan EPDM roof systems may not be applied directly onto a surface of low melting bitumen or tar containing products. Preferably these kind of surfaces should be removed. If that isn't possible, a separation layer must be applied.
- In the case of a bitumen surface with green mineral, a primer must be applied.
- To prevent any mechanical damages on a installed Hertalan EPDM roof system, foot traffic should be limited.
- For maintaining installations on the roof a designated pathway, to prevent mechanical damages, must be installed.
- Hertalan EPDM sheet cannot be adhered onto unfaced polystyrene.
- *Hertalan easy weld* can only be welded on Hertalan EPDM which is produced after 1997.
- When ordering the correct size of membranes take into account that joints, upstands, gutters and such need extra material into relation with the roof surface. This means that the flattened roof surface must be measured and ordered.
- If on a roof surface more than one membrane is used, the hot bonding joints (the head seam) must be placed with at least 3 cm gap.
- In case of a cross overlap a bevelled edge must be created in the top corner.
- The head side of *hertalan easy weld* roof sheet is not provided with TPE welding bead. At a T-seam with the easy weld roof sheet a strip of TPE (welding rope) must be used to fill in the difference in height. To avoid capillary action the thickness between the two sheets has to be reduced. This can easily be achieved by using a Powerfile (clean the area first with white spirit or cleaning solution)
- A head or T-seam between two *hertalan easy weld* roof sheets can also be achieved with a *hertalan cover strip*.

### Specific application instructions

- If a joint must be prepared between a *hertalan easy weld* sheet and existing Hertalan EPDM roofing material (TPE to EPDM connection), the existing surface area must first be cleaned with white spirit or cleaning solution.

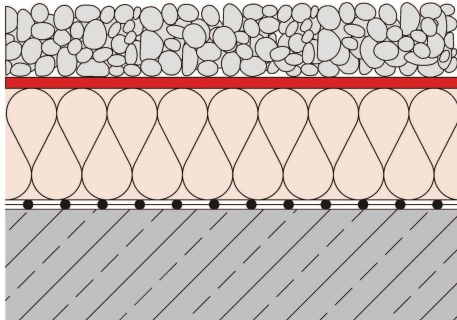
Then carefully roughen the surface area with a Powerfile and remove the dust with a hot air hand tool.

This treatment must also be executed in case the joint can't be prepared on the same day (max. two days).

- *Hertalan easy weld* seams must not be sealed off with any material. Never use an adhesive or sealant in combination with the TPE welding bead.
- Never use *hertalan easy weld* onto or over a joint that is created with *hertalan ks137* or *hertalan ks96*.
- Before checking the seams, the *hertalan easy weld* must have cooled down. Inspection can be carried out with a special test pin or with a blunt awl.

## Loose and ballasted roof systems

Application instructions for *hertalan easy cover* and *hertalan easy weld* roof sheet and membranes, loose applied and ballasted (gravel and/or tiles).



Loose laid with ballast

- See universal and specific application instructions.
- It is recommended to apply a membrane that fits as tight as possible. Apply the supplied membrane according to the enclosed instructions and be aware of good positioning of the membrane.
- Following the sealing of the seams, all perimeters, edges and upstands must be adhered and installation of necessary details and rainwater outlets undertaken.
- It is essential that the choice for the type and amount of ballast is determined according to a wind uplift load calculation. Hertalan technical department can provide this information.
- At the end of the day all the work must be finished for protection against the elements.

## Seams

Depending of the type *hertalan* EPDM roof system a seam can be achieved with adhesive or hot air.

Instructions for preparing a seam with ***hertalan easy cover*** membranes.

Making a seam by adhering with *hertalan ks137* and sealing with *hertalan ks87/ks96*.

- ◇ Product: *hertalan ks137*
  - ◇ Usage: appr. 500 gr/m<sup>2</sup> two-sided
- On a dry and clean surface pull back the sheet for the seam by 100 mm. Keep clear the outer 20 mm and apply to both sides *ks137* in the 80 mm wide band.
  - When the *ks137* is touch dry, carefully close the seam without air pockets and compress the seam with a silicone roller.
  - Apply sealant *ks87/ks96* into the outer 20 mm directly against the bonded section. Apply the roller onto the seam in both length and width so the sealant will be at least 1 mm thick.
  - Make a clean seam by removing the excess sealant.

Instructions for preparing a seam with **hertalan easy weld** roofing sheets.

Durable joints are achieved by hot air welding the TPE welding bead.

There are two possible joints:

- connecting easy weld onto an easy cover;
- connecting easy weld onto an easy weld strip.

The first type we refer to as a green-onto-black joint and the second type as a green-onto-green joint.

- ◇ Tool: hot air welding machine.
- ◇ Temperature and welding speed:  
Depending on surrounding temperature
- For determining the correct welding speed and temperature, first make a few metres of test welding.
- Before checking the seams is possible, the seam must be cooled down. Inspection can be carried out with a special test pin or with a blunt awl.
- During welding the speed must be correct, this is checked visually by looking at the TPE. A small bead of TPE must appear from the seam. When the amount of TPE is too high the speed must be increased. When there is no TPE the speed must be decreased.
- Before making large seams, fixate the **hertalan easy weld** onto each other with some spot welds created with the hot air welding machine.
- Place the special welding nozzle between the sheets, creating a seam of at least 30 mm.
- During welding with the machine put adequate pressure onto **hertalan easy weld** with silicone roller. During welding it is important that seam is pressed together. Therefore apply a stabilization band at the seam.

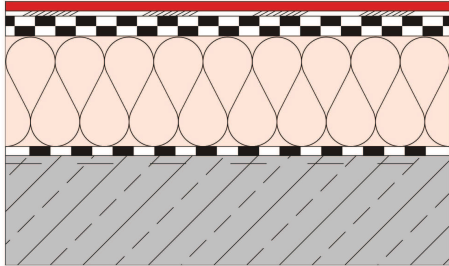
## Edge fixation

It is necessary to apply edge fixation to resist the peel off in case of significant wind uplift. Therefore we split the area in a horizontal part and the vertical area (edge or upstand).

- ◇ Product: **hertalan ks137**
- ◇ Usage: appr. 500 gr/m<sup>2</sup> two-sided
- Two sided adhesion with a minimum width of 300 mm. Provided that at least 150 mm against the upstand (vertical) and at least 150 mm at the surface (horizontal) must be applied. Preferably adhere the complete upstand (vertical area).
- Pull back total required width of sheet, apply on both the EPDM and the surface **ks137** with a brush (rotating movements) or a roller. After drying, **ks137** must be touch dry, put both sides carefully together without air pockets (prevent the forming of folds and tension in the sheet) and compress the adhered area with a silicone roller.
- ◇ Product: **hertalan ks205**
- ◇ Usage: appr. 300 gr/m<sup>2</sup> two-sided
- Two sided adhesion with a minimum width of 300 mm. Provided that at least 150 mm against the upstand (vertical) and at least 150 mm at the surface (horizontal) must be applied. Preferably adhere the complete upstand (vertical area).
- When working with a compressor, the condensation has to be drained first. At the end of the day the compressor has to be "blown off"
- Pull back total required width of sheet, apply on both the EPDM and the surface **ks205**. At normal conditions do not apply **ks205** on a larger area then can be covered in 20 minutes. Put both sides carefully together without air pockets (prevent the forming of folds and tension in the membrane) and compress the adhered area with a silicone roller.



## Adhered roof system



Partial adhered roof system

Application instructions for *hertalan easy cover* and *hertalan easy weld* roof sheets and membranes in an adhered roof system.

- See universal and specific application instructions.
- *Hertalan* EPDM roof sheets and membranes can be both partial and fully adhered with *hertalan ks143*. The maximum size of the membrane depends on the local situation.
- Place a suitable tube on the outer side of the membrane or sheet to be applied. The tube size depends on the specification of membrane or sheet.
- Roll the membrane or the sheet onto the tube, to the point where adhesion must be made.

### Partial adhering

- ◇ Product: *hertalan ks143*
- ◇ Usage: appr. 225 gr/m<sup>2</sup> one-sided
- Apply *ks143* in beads every 80 mm (stripe pattern), the applied beads must have a diameter of appr. ø 8 mm.
- Depending on temperature, wind and humidity the *hertalan ks143* must be left uncovered for 5 to max. 20 minutes for evaporation of the solvent content.
- Place the EPDM material, without large air pockets (prevent the forming of folds and tension in the membrane).

- Continue with closing the overlaps, fixation of upstands, edges and such and install necessary details and rainwater outlets.
- At the end of the day all the work must be finished for protection against the elements.

### Fully adhering

- ◇ Product: *hertalan ks143*
- ◇ Usage: ca. 300 gr/m<sup>2</sup> one-sided
- Apply *hertalan ks143* in beads every 80 mm (stripe pattern), the applied beads must have a diameter of appr. ø 10 mm (slightly more than partial adhering).
- Directly after applying, spread the *hertalan ks143* evenly on the surface with a fleece roller or appropriate tool.
- Depending on temperature, wind and humidity the *hertalan ks143* must be left uncovered for 5 to max. 20 minutes for evaporation of the solvent content.
- Place the EPDM material, without large air pockets (prevent the forming of folds and tension in the membrane). A fully adhered system should have at least 90 % adhesion between the EPDM material and the roof surface.
- Continue with closing the overlaps, fixation of upstands, edges and such and install necessary details and rainwater outlets.
- At the end of the day all the work must be finished for protection against the elements.

## Seams

Depending of the type of *hertalan* EPDM roof system seams can be achieved with adhesive or hot air.

Instructions for preparing a seam with ***hertalan easy cover*** roof sheets and membranes.

Making a seam by adhering with *hertalan ks137* and sealing with *hertalan ks87/ks96*.

- ◇ Product: *hertalan ks137*
- ◇ Usage: appr. 500 gr/m<sup>2</sup> two-sided
- On a dry and clean surface pull back the sheet for the seam by 100 mm. Keep clear the outer 20 mm and apply to both sides *ks137* in 80 mm wide band.
- When the *ks137* is touch dry, carefully close the seam without air pockets and compress the seam with a silicone roller.
- Apply sealant *ks87/ks96* onto the outer 20 mm directly against the bonded section. Apply the roller onto the seam in both length and width so the sealant will be at least 1mm thick.
- Make a clean seam by removing the excess sealant.

Instructions for preparing a seam with ***hertalan easy weld*** roof sheets.

Durable joints are prepared by hot air welding the TPE welding bead.

There are two possible joints:

- connecting easy weld onto an easy cover;
- connecting easy weld onto an easy weld.

The first type we refer to as a green-onto-black joint and the second type as a green-onto-green joint.

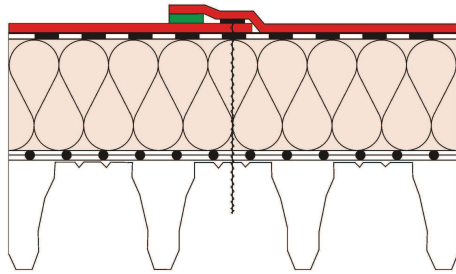
- ◇ Tool: hot air welding machine.
- ◇ Temperature and welding speed:  
Depending on surrounding temperature.
- For determining correct welding speed and temperature, first undertake a few metres of test welding.
- Before checking the seams is possible, the seam must cool down. Inspection can be carried out with a special test pin or with a blunt awl.
- During welding the speed must be correct, this is checked visually by looking at the TPE. A small bead of TPE must appear from the seam. When the amount of TPE is too high the speed must be increased. When there is no TPE the speed must be decreased.
- Before making large seams, fixate the *hertalan easy weld* onto each other with some spot welds created with the welding machine.
- Place the special welding nozzle between the sheets, creating a seam of at least 30 mm.
- During welding put adequate pressure onto *hertalan easy weld* with silicone roller. During welding it is important that seam is pressed together. Therefore apply a stabilization band at the seam.

## Edge fixation

It is necessary to apply edge fixation to resist the peel off in case of significant windload. Therefore we split the area in a horizontal part and the vertical area (edge or upstand).

- ◇ Product: *hertalan ks137*
- ◇ Usage: appr. 500 gr/m<sup>2</sup> two-sided
  
- Two sided adhesion with a minimum width of 300 mm. A minimum of 150 mm against the upstand (vertical) and the roof surface (horizontal) must be applied.  
Preferably adhere the complete upstand (vertical area).
  
- Pull back total required width of sheet, apply to both the EPDM and the surface *ks137* with a brush (rotating movements) or a roller.  
After drying, *ks137* must be touch dry, put both sides carefully together without air pockets (prevent the forming of folds and tension in the sheet) and compress the adhered area with a silicone roller.
  
- ◇ Product: *hertalan ks205*
- ◇ Usage: appr. 300 gr/m<sup>2</sup> two-sided
  
- Two sided adhesion with a minimum width of 300 mm. A minimum of 150 mm against the upstand (vertical) and the roof surface (horizontal) must be applied.  
Preferably adhere the complete upstand (vertical area).
  
- When working with a compressor, the condensation has to be drained first. At the end of the day the compressor has to be "blown off"
  
- Pull back total required width of sheet, apply on both the EPDM and the surface *ks205*. At normal conditions do not apply *ks205* on an area larger then can be covered in 20 minutes. Put both sides carefully together without air pockets (prevent the forming of folds and tension in the sheet) and compress the adhered area with a silicone roller.

## Mechanically fixed roof system



*hertalan easy weld MF*

Application instructions for *hertalan easy cover MF* and *hertalan easy weld MF* roof sheets and membranes in an mechanically fixed roof system.

### ***hertalan easy cover* Mechanical Fix**

- See universal and specific application instructions.
- Maximum size of a manageable MF membrane is appr. 7,5 x 20 m (WxL).
- Place a suitable tube on the outer side of the membrane or sheet to be applied. Roll the membrane onto the tube, to the point where assembly of the membrane starts.
- Unroll the membrane into the direction of the lowest point of the surface, most likely the roof edge. During unrolling at fixed intervals a fitted flap appears that must be installed at the roof surface with suitable fasteners.
- Hertalan accepts only certified installation systems with fasteners that have a wind resistance calculation value of at least 500 N.
- The amount of fasteners must be determined through the calculation of the expected wind load.
- Place the fasteners as close as possible towards the hot-bonding seam.

- On the roof edge the last fastener will be installed and the membrane is placed over the edge. Along the other edges of the roof area the membrane can be placed or an edge strip can be used.
- Continue with adhering the overlaps, fixation of upstands, edges and install necessary details and rainwater outlets.
- At the end of the day all the work must be finished for protection against the elements.

### ***hertalan easy weld* Mechanical Fix**

- See universal and specific application instructions.
- The *hertalan easy weld MF* sheet must be dry and clean. Position the first sheet at the roof and place the fastener (including the mechanical stress plate 80x40 mm) in the seam area of the sheet.
- Hertalan accepts only certified installation systems with fasteners that have a wind resistance calculation value of at least 360 N.
- The distance between the edge of the sheet and the MSP must be at least 10 mm, whereby the MSP must be placed as close as possible towards the TPE welding bead. The MSP and the TPE should not make contact.
- Position the second roof sheet and fixate -if required- the *hertalan easy weld* roof sheet onto each other with some spot welds.
- A head-seam between two *hertalan easy weld* roof sheets can be achieved with a *hertalan cover strip*. At a T-seam with the easy weld roof sheet a strip of TPE must be used to fill in the difference in height and extra fixation.
- Continue with sealing the overlaps, fixation of upstands, edges and such and install necessary details and rainwater outlets.
- At the end of the day all the work must be finished for protection against the elements

## Seams

Depending on the type *hertalan* EPDM roof system a seam can be achieved with adhesive or hot air.

Instructions for preparing a seam with ***hertalan easy cover*** roof sheets and membranes.

Making a seam by adhering with *hertalan ks137* and sealing with *hertalan ks87/ks96*.

- ◇ Product: *hertalan ks137*
- ◇ Usage: appr. 500 gr/m<sup>2</sup> two-sided
- On a dry and clean surface pull back the sheet for the seam by 100 mm. Keep clear the outer 20 mm and apply to both surfaces *ks137* in the 80 mm wide band.
- When the *ks137* is touch dry, carefully close the seam without air pockets and compress the seam with a silicone roller.
- Apply sealant *ks87/ks96* onto the outer 20 mm directly against the bonded section. Apply the roller onto the seam in both length and width so the sealant will be at least 1mm thick.
- Make a clean seam by removing the excess sealant.

Instructions for preparing a seam with ***hertalan easy weld*** roofing sheets.

Durable joints are prepared by hot air welding the TPE welding beads, making a so called green-onto-green joint.

- ◇ Tool: hot air welding machine.
- ◇ Temperature and welding speed:  
Depending on surrounding temperature.
- For determining the correct welding speed and temperature, first make a few metres of test welding.
- Before checking the seams is possible, the seam must cool down. Inspection can be carried out with a special test pin or with a blunt awl.

- During welding the speed must be correct, this is checked visually by looking at the TPE. A small bead of TPE must appear from the seam. When the amount of TPE is too high the speed must be increased. When there is no TPE the speed must be decreased.
- Before making large seams, fixate the *hertalan easy weld* onto each other with some spot welds created with the welding machine.
- Place the special welding nozzle between the sheets, creating a seam of at least 30 mm.
- During welding put adequate pressure onto *hertalan easy weld* with silicone roller. During welding it is important that seam is pressed together. Therefore apply a stabilization band at the seam.

## Edge fixation

It is necessary to apply edge fixation to resist the peel off in case of significant windload. Therefore we split the area in a horizontal part and the vertical area (edge or upstand).

- ◇ Product: *hertalan ks137*
- ◇ Usage: appr. 500 gr/m<sup>2</sup> two-sided
- Two sided adhesion with a minimum width of 270 mm. Provided that at least 120 mm against the upstand (vertical) and at least 150 mm at the surface (horizontal) must be applied. Preferably adhere the complete upstand (vertical area).
- Pull back total required width of sheet, apply on both the EPDM and the surface *ks137* with a brush (rotating movements) or a roller. After drying, *ks137* must be touch dry, put both sides carefully together without air pockets (prevent the forming of folds and tension in the sheet) and compress the adhered area with silicone roller.
- ◇ Product: *hertalan ks205*
- ◇ Usage: appr. 300 gr/m<sup>2</sup> two-sided
- Two sided adhesion with a minimum width of 270 mm. Provided that at least 120 mm against the upstand (vertical) and at least 150 mm at the surface (horizontal) must be applied. Preferably adhere the complete upstand (vertical area).
- When working with a compressor, the condensation has to be drained first. At the end of the day the compressor has to be "blown off"
- Pull back total required width of sheet, apply on both the EPDM and the surface *ks205*. At normal conditions do not apply *ks205* on an area larger then can be covered in 20 minutes. Put both sides carefully together without air pockets (prevent the forming of folds and tension in the foil) and compress the adhered area with a silicone roller.

Instructions for making an edge fixation with ***hertalan easy weld*** roof sheets.

### Method 1

- Install the *hertalan easy weld* directly over the roof edge or upstand. An extra mechanical fixation is not necessary.
- Pull back the *hertalan easy weld*, to a minimum of 150 mm on the horizontal surface. Fully adhere this 150 mm and at least 120 mm against the upstand with *hertalan ks137* or *hertalan ks205*. Preferably adhere the complete upstand (vertical area).
- After drying, adhesive must be touch dry, put both sides carefully together without air pockets (prevent the forming of folds and tension in the sheet) and compress the adhered area with silicone roller.

### Method 2

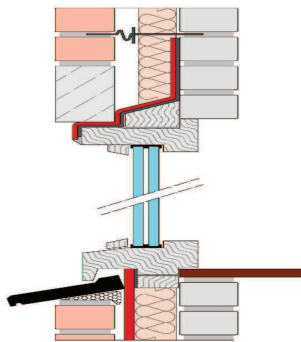
- Place the *hertalan easy weld* roof sheet towards the outside of the roof area and minimal 150 mm against the upstand.
- Place at the horizontal area as close as possible to the upstand, at least every 250 mm a fastener with mechanical stress plate (80x40 mm).
- Fully adhere the up going sheet (at least 150 mm) against the upstand with *hertalan ks137* or *hertalan ks205*.
- Continue with covering the complete upstand and at least 150 mm of the horizontal surface with a *hertalan easy weld* roof sheet (usually a strip of 700 mm is sufficient). Pay attention that the TPE welding bead doesn't make contact with the installed fasteners. The fasteners (including the mechanical stress plate) must be at least placed 50 mm on the inside of the overlap.
- With hot air the TPE welding bead can be placed onto the EPDM surface, a so called green-onto-black joint. See instructions described earlier in this document.

## Hertalan EPDM DPC systems

As a waterproofing system, EPDM has a favourable environmental impact, is water and air tight, shows no leaching, is recyclable, has long term flexibility and will not be affected by acids present in water.

Furthermore EPDM has a long life expectancy and can be adhered onto almost all substrates with specially developed adhesives.

These features make EPDM rubber products from Hertalan the ideal material for a water proofing barrier in building constructions.



Window construction with *hertalan S*

Depending on the building construction, there are the following applications:-

- 1 ***hertalan S***  
unreinforced vulcanised EPDM strip.
- 2 ***hertaled***  
two layer material of vulcanised EPDM strip and 200 mm wide aluminium mesh metal reinforcement.

## Universal application instructions

For applying Hertalan EPDM strips there are universal product specific application instructions. These must be followed to obtain a perfect wind and water tight result.

- Hertalan EPDM façade systems are applied without naked flame and at a minimum surrounding and material temperature of 5°C.
- All components of the Hertalan systems are adapted to each other and form a complete system. Only Hertalan approved adhesives and sealants are to be applied.
- It is important to apply Hertalan façade systems with clean materials and appropriate tools.
- In the constructive design, condensation behind the construction must taken into account.
- Every surface in the construction where Hertalan EPDM façade systems are applied, must be smooth, dry, clean and free of oil, grease and sharp objects.

## Specific application instructions

- *Hertaled* lead replacement is not suitable for application onto roof tiles.

### ***hertalan S* EPDM strip**

*Hertalan S* EPDM strips are suitable both for prefabricated applications in a working factory (such as panels, window frames, dormers, etc.) and directly on site (including use in cavity walls as an alternative to lead products, water rejecting barriers for details, etc.).

The strips can be adhered onto almost all substrates using specially developed adhesives. The strips can be supplied in different widths (max. 1400 mm) with a roll length of 20 metre.

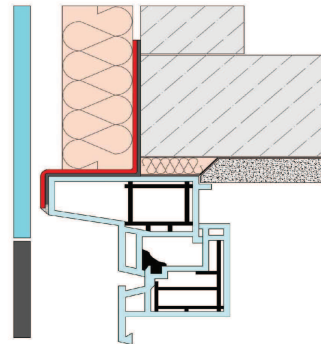
### ***hertalan ks96* adhesive sealant**

Application instructions for *hertalan S* installed into a building construction with *hertalan ks96*.

- ◇ Product: *hertalan ks96*
- ◇ Usage: ca. 15 m<sup>1</sup> for a sausage of 600 ml

- See universal and specific application instructions.
- When an EPDM strip is installed on a porous surface a primer has to be applied first. This has also to be considered for concrete surfaces covered with shuttering oil. First roughen the surface a little bit and then add the primer. (Use the *hertalan ks96* primer).
- Cut away the top 35 mm of the provided nozzle, so an opening with a 7 mm diameter is created.
- Apply the *ks96* one sided in beads of Ø 7 mm, do not spread the *ks96*.
- The number of beads applied depends on the size of the strip. Strips up to a width of 300 mm are applied with 1 bead. Wider strips should be applied with at least two beads.
- Where *hertalan S* is applied onto a substrate that has height differences, corners and such, every level and corner must be fixated with a bead of *ks96*.
- After applying several m<sup>1</sup> of *ks96*, place the *hertalan S* directly onto the first bead of *ks96*.

- Use a silicone roller to put pressure onto the EPDM covered bead in such a way that a seam of approximately 30-40 mm with a thickness of at least 1 mm is formed.
- Handle the remaining beads of *ks96* in the same way. Put pressure onto bead to form a 30-40 mm wide seam with a thickness of at least 1 mm.
- Make a clean seam by removing the excess of sealant.



Construction with *hertalan S*

### ***hertalan ks137* contact adhesive**

Application instructions for *hertalan S* installed into a building construction with *hertalan ks137*.

- ◇ Product: *hertalan ks137*
- ◇ Usage: ca. 500 gr/m<sup>2</sup> two-sided
- See universal and specific application instructions.
- Apply *hertalan ks137* to both construction surface substrate and *hertalan S*. This can be done with a brush (rotating movements) or for larger areas with a roller.
- Allow both surfaces to dry, *ks137* must be touch dry, put both sides carefully together without air pockets (prevent the forming of folds and tension in the EPDM) and compress the adhered area with a silicone roller.



## ***hertalan ks205* sprayable contact adhesive**

- ◇ Product: *hertalan ks205*
- ◇ Usage: ca. 300 gr./m<sup>2</sup> two-sided
- See universal and specific application instructions.
- *Hertalan ks205* is applied with a closed spray system. Apply adhesive to both the substrate and the *hertalan S* surface.
- When working with a compressor, the condensation has to be drained first. At the end of the day the compressor has to be "blown off"
- Let *ks205* dry for a short time and put both sides carefully together without air pockets (prevent the forming of folds and tension in the foil) and compress the adhered area with a silicone roller.

- Make a clean seam by removing the excess sealant.

## **Seam**

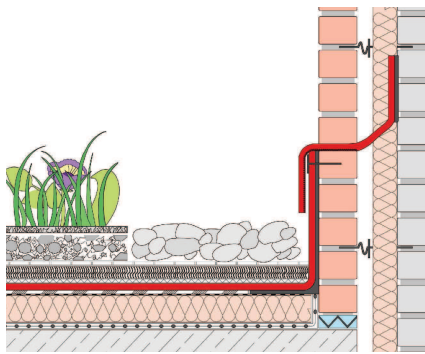
Creating seam by adhering with *hertalan ks137* and sealing with *hertalan ks87/ks96*.

- ◇ Product: *hertalan ks137*
- ◇ Usage: ca. 500 gr./m<sup>2</sup> two-sided
- On a dry and clean surface pull back the membrane for the seam by 100 mm. Keep clear the outer 20mm and apply the *ks137* in the 80 mm wide band.
- When the *ks137* is touch dry, carefully close the seam without air pockets and compress the seam with a silicone roller.
- Apply sealant *ks87/ks96* onto the outer 20 mm directly against the bonded section. Apply the roller onto the seam in both length and width so the sealant will be at least 1mm thick.

## ***hertaled* lead alternative**

*Hertaled* is developed by Hertalan as a lead substitute for several applications such as cavity walls constructions, window frames and roof lights. *Hertaled* is a composite of hertalan S with a reinforcement of 200 mm wide aluminium mesh metal. The mesh metal makes it possible to shape and bend the hertaled into the required form.

*Hertaled* can be supplied in 210, 450 and 650 mm on rolls of 6 and 12 metre.



Green roof with *hertaled* as lead substitute

## ***hertalan ks96* adhesive sealant**

- ◇ Product: *hertalan ks96*
- ◇ Usage: ca. 15 m<sup>3</sup> for a sausage of 600 ml

- See universal and specific application instructions.
- The required width of the hertaled depends on the width of the cavity and the method of fastening onto the inner wall.
- Position on the first layers of the outer wall the reinforced part of the *hertaled*. Place the *hertaled* in such a way that 150 mm is at the outside of the outer wall and 50 mm in the masonry joint of the outer wall.
- Whilst working up the outer wall, care should be taken that no mortar or other debris falls into the cavity.
- Shape or bend the 150 mm wide reinforced part of hertaled along the outer wall, in such a way that it is tight against the wall.
- Fixate the unreinforced part with 2 beads of *hertalan ks96* against the inner wall and firmly roll over with a silicone roller. The unreinforced part can also be mechanically fixed with a suitable clamp strip against the inner wall at the correct height.

## **Seam**

- ◇ Product: *hertalan ks137*
- ◇ Usage: ca. 500 gr./m<sup>2</sup> two-sided

- Position two hertaled strips against each other with a gap of 5 mm.
- Apply onto the *hertaled* on both sides of the seam 80 mm of *hertalan ks137*. Take a 200 mm wide 0,75 mm thick strip of *hertalan S* EPDM and also apply *ks137*, leaving the outer 20 mm free of adhesive.
- When the *ks137* is touch dry, carefully place the hertalan S EPDM strip onto the hertaled and close the seam without air pockets and compress with a silicone roller.
- Apply sealant *ks87/ks96* onto the outer 20 mm directly against the bonded section. Apply the roller onto the seam in both length and width so the sealant will be at least 1mm thick.
- Make a clean seam by removing the excess sealant.

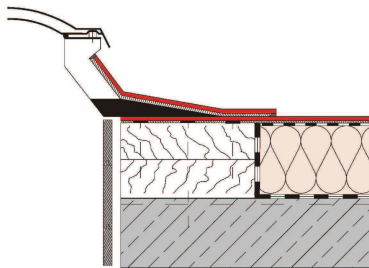
- ◇ Product: *hertalan ks96*
- ◇ Usage: ca. 15 m<sup>1</sup> for a sausage of 600 ml
  
- Apply 2 beads of *hertalan ks96* to both sides on the first 75 mm beneath the seam.
  
- Take a 150 mm wide 0,75 mm thick strip of *hertalan S* EPDM and position this onto the seam so the *ks96* is covered.  
Apply appropriate pressure with a silicone roller so the *ks96* becomes visible at the outside of the *hertalan S* strip.
  
- Make a clean seam by removing the excess sealant.

### Corner detail

- In creating a corner detail don't make an overlap with *hertaled*. Preferably use the prefab Hertalan internal and external prefabricated EPDM corners. The seam must be prepared as per the aforementioned described instructions.

## Hertalan EPDM accessories

During application of the different Hertalan roof systems, details must be integrated in the waterproofing layer. Special Hertalan accessories are developed to solve those situations. So you are assured of a complete and complementary EPDM roof system.



Rooflight detail

Depending on the roof system, following accessories can be used:

- 1 *hertalan easy stick***  
A composite of an EPDM sheet with a self adhesive butyl based backing.
- 2 *hertalan easy stick plus***  
A composite of an EPDM sheet with a self adhesive butyl based backing and a 40 mm wide TPE welding band.
- 3 *hertalan flashing***  
Unreinforced unvulcanised EPDM rubber which is plastically deformable and will vulcanise in natural conditions.
- 4 *hertalan flash weld***  
Unreinforced unvulcanised EPDM rubber provided with TPE layer, which is plastically deformable and will vulcanise in natural conditions.
- 5 *hertalan cover strip***  
Unreinforced vulcanised EPDM strip which is provided with a full backing surface layer of TPE.

## Additional accessories

- 6 *hertalan rainwater outlet***  
An outlet of PE fitted with a sleeve of unreinforced vulcanised EPDM, also available with TPE welding strip.
- 7 *hertalan prefab corners***  
Unreinforced vulcanised EPDM internal and external corners, also available with TPE welding strip.
- 8 *hertalan rooflight connection strips***  
Unreinforced vulcanised EPDM strips -incl. external corners for watertight installation of roof lights, also available with TPE welding strip.
- 9 *hertalan prefab site sleeve***  
Unreinforced vulcanised EPDM site sleeve (square) for installing of roof details, also available with TPE welding bead.
- 10 *hertalan prefab pipe covers***  
Prefab EPDM pipe covers incl. connection sleeve, also available with TPE welding bead.

## Universal application instructions

Hertalan EPDM accessories are complementary components for installing Hertalan EPDM roof systems. For the application the general and specific application instruction of the Hertalan EPDM roof systems are applicable.

## Specific application instructions

- For installing site sleeves (squares) or accessories with site sleeves, the edges of the EPDM must be bevelled.
- Only *hertalan easy stick plus* is suitable for application in green roof systems (standard *hertalan easy stick* is not).

- *Hertalan* flash weld is not suitable for application at pipe protrusions and outlets.

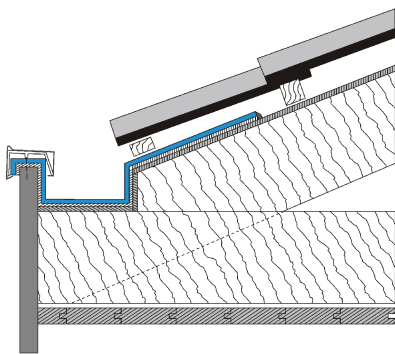
### ***hertalan* easy stick**

*Hertalan* easy stick is extremely suitable for installing rooflights and gutters (both new and renovation). *Hertalan* easy stick is self adhering and applied without naked flame.

*Hertalan* easy stick can be supplied in different widths (standard width is 1400 mm) with a roll length of 20 metre.

Application instructions for *hertalan* easy stick.

- See general and product specific instructions of *hertalan* EPDM roof systems.
- The surface must be smooth, dry, clean, and free of oil, grease and sharp objects. Depending on the substrate, clean or degrease with white spirit or apply a bituminous primer or prime with *hertalan ks137* contact adhesive (applied one-sided at substrate).
- Remove the protective layer on the reverse side of *hertalan* easy stick, on larger areas remove layer part by part. Place *hertalan* easy stick onto the substrate and pay special attention to the connection at the periphery of the roof area.
- To apply *hertalan* easy stick use a silicone roller, so the self adhering butyl layer becomes firmly bc



Installation of *hertalan* easy stick in a gutter

- At low application temperatures it is advisable to activate the butyl adhesive before installing the *hertalan* easy stick. This can be done by warming the EPDM side with hot air. Directly afterwards apply appropriate pressure with silicone roller.

### **Seam**

- Put two *hertalan* easy stick strips parallel (butt joint) together and press on with silicone roller.
- Subsequently apply a strip of *hertalan S* with a minimum width of 100 mm (install with 2 beads of *hertalan ks96* at both sides of the seam) or apply a *hertalan* cover strip.

### ***hertalan* easy stick plus**

*Hertalan* easy stick plus has a green TPE welding strip for application with hot air. Mainly applied for installing of roof lights, chimneys, upstands and other details.

*Hertalan* easy stick plus is supplied with a roll length of 20 metre and a width of 550 mm.

- See general and product specific instructions for *hertalan* EPDM roof systems
- The surface must be smooth, dry, clean and free of oil, grease and sharp objects. Depending on the substrate, clean or degrease with white spirit or apply a bituminous primer or prime with *hertalan ks137* contact adhesive (applied one-sided at substrate).
- Remove protective layer on reverse side of *hertalan* easy stick plus, on larger areas remove layer part by part. Place *hertalan* easy stick plus onto the substrate and pay special attention to the connection at the periphery of the roof area.
- To apply *hertalan* easy stick plus, use a silicone roller, so the self adhering butyl layer becomes firmly bonded with the substrate.

- The green TPE welding strip must be bonded to the substrate using hot air.
- At low application temperatures it is advisable to activate the butyl adhesive before installing the *hertalan* easy stick. This can be done by warming the EPDM side with hot air. Directly afterwards apply appropriate pressure with silicone roller.

## Seam

- Put two *hertalan* easy stick plus strips parallel (butt joint) together and press on with roller. Apply *hertalan* cover strip to make overlap.

## *hertalan* flashing

*Hertalan* flashing is especially designed for internal and external corners where standard products do not fit, to create watertight solutions at abnormal corners or at a large openings in the roof surface.

*Hertalan* flashing is supplied on rolls in lengths of 5 metres and a widths of 300 mm.

- See general and product specific instructions for *hertalan* EPDM roof systems.
- *Hertalan* flashing should only be applied onto Hertalan EPDM with *hertalan ks137* contact adhesive .
- Mark the area where the *hertalan* flashing will be applied. Apply on both the reverse side of the *hertalan* flashing and the top side of the EPDM (substrate) *hertalan ks137* and let it dry completely.
- When the *ks137* is touch dry, remove the protective layer from the top-side of the flashing. Fold the flashing in such a way that both sides with adhesive can not make contact.
- Position the flashing with the side with *ks137* against the upstand part and then place it

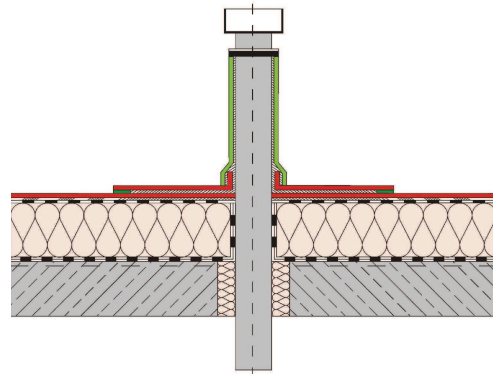
towards the horizontal area. Place the welding nozzle of the hot air gun between the folded parts of the flashing. (do not warm up *ks137* directly!).

- If the flashing is warm enough, it can be stretched and secured onto the horizontal area. Seams in the rim area must be closed properly. Use a copper roller.
- Subsequently use a silicone roller to firmly press on the flashing and apply a bead of *hertalan ks87* or *hertalan ks96* to seal the edge of the flashing. Remove the excess sealant in order to make a clean seam.

## *hertalan* flash weld

*Hertalan* flash weld is especially designed for internal and external corners where standard solutions do not fit and a weldable Hertalan EPDM substrate is available.

*Hertalan* flash weld is supplied on rolls in lengths of 5 metres and widths of 180 mm.



Installing a prefab pipe cover with *hertalan* flashing

- See general and product specific instructions for *hertalan* EPDM roofing systems.
- *Hertalan* flash weld is applied onto Hertalan EPDM with hot air. It is not allowed to use *hertalan ks137* to install *hertalan* flash weld.

- Prepare the flash weld in such a way that a welding strip of at least 35 mm remains on both sides of the seam.
- Assemble a welding nozzle with pre-drilled holes onto the hot air gun. Perform the flash weld by warming up the top surface. Be careful not to overheat the product.
- Fixate the preformed flash weld by spot bond welds onto the Hertalan EPDM membrane. Position the welding nozzle underneath the flash weld and fixate it by rolling over with a small (28 mm) silicone roller and use a copper roller for the rim area.
- During welding a small green bead of TPE must become visible on the outside of the flash weld. Seams should never be sealed with *hertalan ks87* or *hertalan ks96*.

### ***hertalan* cover strip**

*Hertalan* cover strip is especially designed for creating an adequate joint between two roof sheets or a T-seam.

*Hertalan* cover strip can be supplied on rolls in lengths of 20 metre and widths of 120 or 180 mm.

- See general and product specific instructions for Hertalan EPDM roof systems.
- *Hertalan* cover strip and Hertalan EPDM sheet (as a substrate).

### **Seam**

- Put two *hertalan* easy stick plus strips parallel (butt joint) together or with an overlap and press on with roller.
- Place the *hertalan* cover strip onto the seam and position it so that the seam is exactly in the middle of the *hertalan* cover strip (If more than one membrane is applied, the hot-bonding

seams at the head side must be placed with at least 3 cm in between).

- Fixate the *hertalan* cover strip every metre by making spot welds. Subsequently position the welding nozzle between the *hertalan* cover strip and the Hertalan EPDM material. Move the hot air gun with appropriate speed alongside the seam making a weld of at least 35 mm.
- During welding proper pressure must be applied onto the *hertalan* cover strip with a silicone roller. A small green bead of TPE must become visible at the outside of the flash weld. If too much TPE is beside the seam, the working speed should be increased.
- At a T-seam, at the spot of the hot-bonding seam of the membrane, a strip of TPE (welding material) must be placed to fill the gap and for extra fixation.
- Apply extra pressure by welding the *hertalan* cover strip onto the hot-bonding seam, by using a 5 mm wide copper roller.

### **Additional accessories**

Hertalan accessories are modified for direct application onto Hertalan EPDM material.

The product range consists of a series of standard products, most kept on stock. Apart from that Hertalan offers the possibility for ordering different sizes or special designs.

- See general and product specific instructions for Hertalan EPDM roof systems.
- Mark the position where the rainwater outlet, corner or other detail must be installed.
- Apply on both the under side of the accessory and the topside of the EPDM substrate (marked area) *hertalan ks137*. A strip of 20 mm. at the perimeter of the EPDM material and flap of accessory must be kept clear of adhesive. *ks137*

must be touch dry before both sides are assembled.

- In case a gap is made into the EPDM for installing a detail, a strip of 20 mm at the outside of the EPDM material and flap of accessory must be kept clear of *ks137*.
- Position the accessories onto the substrate, fitting the marked area. Make sure, if applicable that the materials in the area of the upstands are put together properly. Use a copper roller. The remaining surface can be pressed on with a silicone roller.
- To complete the installation of the accessory, apply a bead of *hertalan ks87* or *ks96* along the outside of the 20 mm adhesive free strip of the EPDM and substrate. Apply appropriate pressure with roller along the seam, so a layer of minimal 1 mm thick paste will form.
- Make a clean seam by removing the excess sealant.

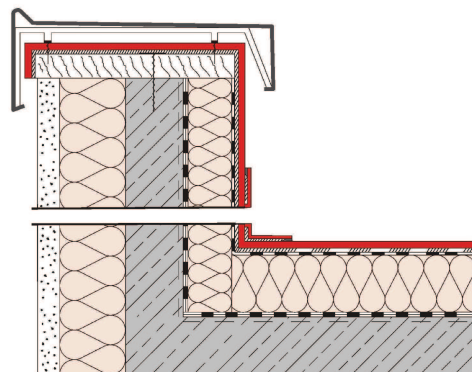
### Additional application instructions

Additional application instructions for assembly of round roof accessories (pipes or such) with prefab or tailor made sleeve:

- Mark the centre of the round area to be perforated onto the EPDM material. (Assuming the EPDM material is placed over the round accessory).
- Mark a circle, with a diameter of 1/3 of the required roof opening, around the previous made marking, or a circle with a diameter that is 6 cm smaller than the needed roof opening, the largest option must be applied.
- Punch the required opening into the EPDM material, larger openings can be made with scissors. Subsequently place the EPDM material

over the accessory and pull it towards the fitted slab.

- The tension created by the smaller opening in the EPDM material creates an upstand and watertight connection at the placed accessory. A 150 mm EPDM upstand collar should be formed to conform to Building Regulations.
- In case the used accessory has a rough surface (no watertight connection possible) or welding seam, pull back the upgoing EPDM and apply a bead of *hertalan ks96* adhesive sealant. Unfold the EPDM and apply appropriate pressure with roller along the seam, so a layer of minimal 1 mm thick paste will form.
- Make a clean seam by removing the excess sealant.



Installing a prefab *hertalan* easy cover rainwater outlet



***hertalan***  
the Waterproof Solution

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