HERTALAN®

Specification Guidelines

www.hertalan.co.uk

CARLISLE CM EUROPE

Contents

Foreword

The following Specification Guidelines form the basis of the planning preparatory work for roof waterproofing solutions with the HERTALAN® EASY COVER / EASY COVER FR EPDM sheets and the HERTALAN® EASY WELD EPDM waterproofing membranes.

All the key roof structures and detailed designs are described both in text form and by means of pictures and drawings. Other local circumstances or material combinations that are not described may have an impact on functionality. Deviations from the Specification Guidelines and special solutions therefore require prior consultation with our Technical Department.

Both the information and the product descriptions contained in this publication have been compiled to the best of our knowledge and belief based on our prior experiences and tests. They form the basis of all the solutions described. Claims for compensation may not be derived from the same. We reserve the right to make technically reasonable changes to designs and ranges to meet our high quality and progress standards.

The publication of these Specification Guidelines shall cause all previous versions to lose their validity.

June 2017

1. Basic rules

- The generally recognised rules of technology must be observed. The latest versions shall apply with respect to the standards, regulations and guidelines.
- All the afore mentioned EPDM waterproofing materials meet the material requirements for the property class E1 in the case of single layer application.
- Depending on the material thickness listed, the material requirements with respect to the application classes K1 or K2 as per DIN 18531 are satisfied.
- Preliminary work by other trades must be suitable for the roof structure in question.
- It is not possible to take all the constructive partial and special solutions into consideration in these Specification Guidelines.
- In the event of deviations from the general technical regulations, the specifications according to these guidelines may be applied.

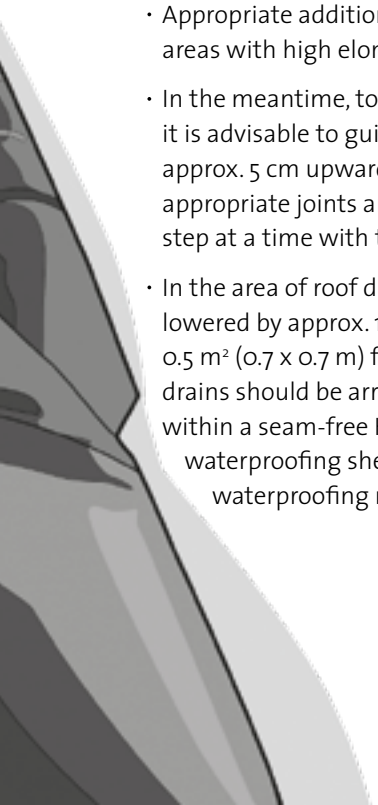
2. General specification information

The selection of the suitable sheet and membrane options, their application variant, and the selection of all the other individual layers of the overall roof structure correlates with the following system certificates for the overall design:

- Safety with respect to the supporting structure, wind suction protection and structural stability
- Thermal and moisture protection certificate
- Compliance with the specifications set down in the Energy Saving Regulations
- Fire protection certificate, sound insulation certificate if necessary
- Root protection if there is green vegetation on the roof

When specifying the standard layer structure and the detailed solutions, the following information must be observed, to name but a few examples:

- According to the technical regulations, roof areas should have a minimum slope of 2% for rainwater drainage purposes.
- The general substrate requirements for the application variant in question must be taken into consideration. In particular, the substrate in question must be checked with respect to material compatibility and mechanical stress. Suitable protective layers must be applied if necessary.
- Appropriate additional measures must be taken above areas with high elongation stress.
- In the meantime, to prevent water from penetrating, it is advisable to guide the waterproofing membrane approx. 5 cm upwards in front of rising structures. The appropriate joints and junctions should be formed one step at a time with the surface covering process.
- In the area of roof drains, the substrate should be lowered by approx. 1 cm on a surface area of approx. 0.5 m^2 (0.7 x 0.7 m) for faster rainwater drainage. Roof drains should be arranged as centrally as possible within a seam-free HERTALAN® EASY COVER waterproofing sheet or HERTALAN® EASY WELD waterproofing membrane.
- Depending on the individual layers, additional measures must be taken against slipping in conjunction with the roof geometry if necessary.
- For all roof structures mentioned in these Specification Guidelines with various HERTALAN® EASY COVER / HERTALAN® EASY COVER FR EPDM sheets and EASY WELD waterproofing membranes, the certificates of resistance to flying sparks and radiating heat are available according to DIN 4102, T.7 or for B Roof (t1) according to DIN EN 1187.
- In the event of refurbishment of waterproofing solutions that are susceptible to shrinkage, it is necessary to hold a consultation with our Technical Team in advance.
- We advise applying the self-adhesive aluminium vapour barrier membranes ALUTRIX® FR or ALUTRIX® 600 as a vapour barrier membrane on trapezoidal steel profiles and timber / timber materials. The tearproof membranes have an equivalent air layer thickness (sd value) of at least 1,800 m. ALUTRIX® FR also has a heating value of less than 10,500 kJ/m^2 and a fuel value of less than 11,600 kJ/m^2, and thus meets the fire safety requirements as per DIN 18234 or the Industrial Building Directive.
- When installing thermal insulation made of polystyrene rigid foam panels under freely exposed waterproofing solutions, their temperature resistance of max. 70 to 85°C (long term) and of max. 100°C (short term) must be observed. Because this temperature resistance can be exceeded within local roof areas with increased heat build up, such as in front of heat reflecting, bright or glazed façades, we advise arranging a ballast or using alternative thermal insulation materials here.
- Regular care, inspection and maintenance measures must be taken in accordance with the national specifications so as to achieve the optimum service life for the overall waterproofing solution. It is advisable to conclude an appropriate inspection and/or maintenance contract for this purpose.



3. Overview of the waterproofing products

3.1 EPDM WATERPROOFING SHEETS

HERTALAN® EASY COVER

HERTALAN® EASY COVER FR

Either tailored to the building structure or ready-made, homogeneous EPDM sheets with hot bonding seam connections, with an EW joining edge as an option. It is also possible to apply sheets with standard widths, with an EW joining edge as an option.

PRODUCT SPECIFIC PROPERTIES:

Sheet designation acc. to DIN 18531 and DIN SPEC 20000–201:
DE / E1 EPDM BV 1.3 and 1.5 mm and designation acc. to DIN SPEC 20000–202: BA / MSB Q EPDM BV 1.3 and 1.5 mm,

CE certification acc. to DIN EN 13956 and DIN EN 13967

Meets the requirements as set down in DIN 18531 and the Flat Roof Guidelines

Resistant to roots acc. to the FLL and DIN EN 13948

3.2 EPDM WATERPROOFING MEMBRANES

HERTALAN® EASY WELD MF

HERTALAN® EASY WELD BASIC

Homogeneous EPDM waterproofing membranes with ready-made EW joining edges (alternately above and below).

- HERTALAN® EASY WELD MF:
  EW joining edge offset from the membrane edge
- HERTALAN® EASY WELD BASIC:
  EW joining edge starting right at the membrane edge

PRODUCT SPECIFIC PROPERTIES:

Membrane designation acc. to DIN 18531 and DIN SPEC 20000–201:
DE / E1 EPDM BV 1.3 and 1.5 mm

CE certification acc. to DIN EN 13956

Meets the requirements as set down in DIN 18531 and the Flat Roof Guidelines

Root-resistant acc. to the FLL and DIN EN 13948

3.3 SYSTEM SUPPLEMENTS

SYSTEM COMPONENT	BRIEF DESCRIPTION	USE
HERTALAN® cover strips; 120/180/360 mm wide, 20 m long	Weldable seam tape as vulcanised EPDM strips with full surface EW coating on the underside.	Seam connection comprising HERTALAN® EASY WELD transverse joints and HERTALAN® EASY COVER seams;
HERTALAN® FLASH WELD; 180 mm wide, 5 m long	Thermoplastic welding tape made of unvulcanised rubber with full surface EW coating on the underside that can plastically deform	Primarily for forming weldable internal and external corners
HERTALAN® pre formed accessories	Vulcanised EPDM pre formed accessories with EW joining edge; pipe sleeves	Formation of internal and external corners; sealing of circular roof penetrations
HERTALAN® EASY WELD flat roof drains	PE drains with a vulcanised EPDM flange and EW joining edge.	One part drainage elements
HERTALAN® KS 143 adhesive	Single component, solvent based PU adhesive	Surface bonding for sheets and membranes
HERTALAN® KS 205 adhesive	Solvent based, sprayable contact adhesive with a synthetic rubber and synthetic resin base	Bonding of joints and junctions
HERTALAN® KS 137 adhesive	Solvent based, spreadable contact adhesive with a synthetic rubber and synthetic resin base	Bonding of joints and junctions; bonding of seams
HERTALAN® KS 96 adhesive	Single component adhesive and sealant with an MS polymer base	Additional seam sealing of bonded seam connections
HERTALAN® EASY WELD welding rope	Plastically deformable rope, diameter: 3 mm	Ensuring sufficient filling at T-joints and in places where there are differences in height

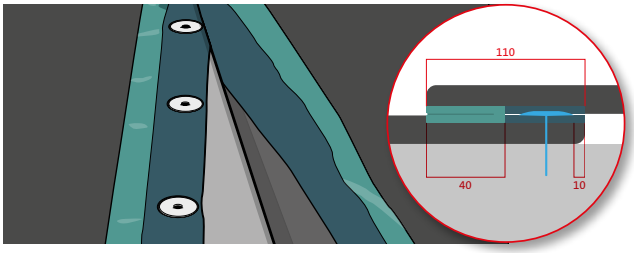
4. Complete overview of the application options

APPLICATION VARIANTS	LOOSE LAYING WITH MECHANICAL FIXATION		PARTIAL OR FULL SURFACE COLD BONDING		APPLICATION WITH BALLASTING / GREEN VEGETATION / WEARING LAYER*	
Waterproofing sheet / waterproofing membrane	EASY COVER / EASY COVER FR	EASY WELD MF	EASY COVER / EASY COVER FR	EASY WELD BASIC*	EASY COVER	EASY WELD BASIC* EASY WELD MF
Type of fixation	Induction method	Seam fixation	KS 143 polyurethane adhesive		Optional or depending on the substrate	
Cover in the case of seam welding	Min. 5 cm in the case of green-on-black welding	11 cm	5 cm		· Min. 5 cm, · 11 cm in the case of mechanical EASY WELD MF seam fixation	
Cover in the case of seam bonding**	10 cm					

* THE LOOSE LAYING AND SURFACE BONDING OF EASY WELD BASIC MEMBRANES ARE NOT STANDARD VARIANTS, BUT ARE POSSIBLE FROM AN APPLICATION TECHNOLOGY PERSPECTIVE. PLEASE CONTACT OUR TECHNICAL TEAM FOR FURTHER ADVICE
** SEAM BONDING NOT POSSIBLE IN THE CASE OF MECHANICAL EASY WELD MF SEAM FIXATION AND UNDER GREEN VEGETATION.

5. Information on jointing

5.1 HOT-AIR WELDING



EW JOINING EDGES FASTENER APPROX. 80 x 40 mm / METAL (AS CLOSELY AS POSSIBLE TO THE JOINING EDGE!)

A perfect seam joint is created by means of hot-air technology using the factory-installed EW joining edges.

Possible variants are:

- EW joining edge on black EPDM (green-on-black)
- EW joining edge on EW joining edge (green-on-green)
- Welding width: 4 cm

Basic setting for welding with machinery:

- Green on green: 500 - 580°C and 2.5 lm/min
- Green on black: 500 - 580°C and 2.0 lm/min

The welding parameters depend on the climatic constraints and the welding machinery being used. Optimum welding parameters are determined following sample welding.

The transverse joints of EASY WELD membranes have no EW joining edge. They are full surface welded using separate strips made of EASY WELD seam tape, which are 12 cm or 18 cm wide and have an EW joining edge on the underside.

Measure in the T-joint area: Insertion of an EASY WELD welding rope with a diameter of 3 mm

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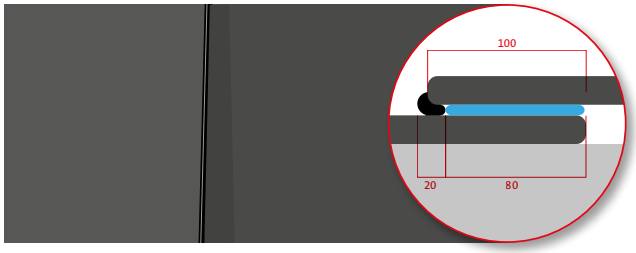
When welding areas that are freely exposed for longer than 24 hours, before welding takes place the EPDM surface must be pre treated by means of roughening up or grinding. This is done with a power file, such as a 9031 belt file from Makita with a grinding belt width of 30 mm. Freely exposed areas that are more than six years old should be seam bonded.

5.2 SEAM BONDING



HERTALAN KS137 HERTALAN KS96

It may be useful to join seams by means of bonding under certain application conditions. This particularly concerns connections of individual sheets with a few seam connections that do not have an EW joining edge.

- Cover width: min. 10 cm
- Bond widths: min. 8 cm KS 137 contact adhesive, starting from the lower edge of the membrane, plus min. 2 cm HERTALAN® KS 96 adhesive, remaining area up to the upper edge of the membrane

No bonds may be created with the EW joining edges (e.g. in the case of HERTALAN® EASY WELD seam connections).

Attention: Bonded seam connections are not possible for waterproofing solutions used under green vegetation.

6. Application options / substrate conditions

All the application options depending on the substrates and possible ballasts / wearing layers or green vegetation are listed within the overviews below.

6.1 BONDED ROOF STRUCTURES WITH A HERTALAN® EASY COVER WATERPROOFING MEMBRANE FOR A ROOF PITCH OF UP TO 20°

SUBSTRATE	LAMINATION / INITIAL COVERING / SEPARATING LAYER	THICKNESS IN mm
Polystyrene rigid foam panels (EPS); Type DAA-dm for unused roofs, Type DAA-dh also for used roofs, can be walked on	Bitumen membrane with liner made of glass fleece or glass fabric, sanded or talc powdered	1.3 1.5
Polyurethane / polyiso rigid foam panels (PUR / PIR); Type DAA-dh and DAA-ds also for used roofs, can be walked on	Non-laminated or laminated on both sides with mineral fleece	
Supporting structure (solid, timber/ timber material)	None	
Existing bituminous roof	None	
Existing roof made of plastic or elastomer membranes; Consultation with Technical team required	None	

HERTALAN® EASY COVER

SURFACE BONDING	ADHESIVE CONSUMPTION IN g/m²	REMARKS
Partial or full-surface bonding with HERTALAN® KS 143 adhesive (minimum surface area of 50 %)	Approx. 225 in the case of partial-surface bonding	• Observe the installation conditions specified by the insulation and bitumen membrane manufacturers; • Take additional measures against slipping if necessary.

6.2 MECHANICALLY FIXED ROOF STRUCTURES WITH HERTALAN® EASY COVER / HERTALAN® EASY COVER FR WATERPROOFING SHEETS FOR A ROOF PITCH OF UP TO 20°

SUBSTRATE	LAMINATION / INITIAL COVERING / SEPARATING LAYER
Mineral wool panels (MW); Type DAA-dm for unused roofs	None
Polystyrene rigid foam panels (EPS); Type DAA-dm for unused roofs, Type DAA-dh also for used roofs, can be walked on	Raw glass fleece, A2
Polyurethane / polyiso rigid foam panels (PUR / PIR); Type DAA-dh and DAA-ds also for used roofs, can be walked on	Non-laminated or laminated on both sides with aluminium or mineral fleece
Supporting structure (solid, timber / timber material, plain sheet)	Raw glass fleece, A2
Existing bituminous roof	None
Existing roof made of plastic or elastomer membranes	None

HERTALAN® EASY COVER HERTALAN® EASY COVER FR

	SHEET TYPE	THICKNESS IN mm	REMARKS
	HERTALAN® EASY COVER FR	1.3 1.5	• Observe the installation conditions specified by the insulation manufacturer. • Number and arrangement of membrane fasteners according to DIN EN 1991, the flat roof guidelines and the factory specifications.

HERTALAN® EASY COVER

6.3 MECHANICALLY FIXED ROOF STRUCTURES WITH HERTALAN® EASY WELD MF WATERPROOFING MEMBRANE FOR A ROOF PITCH OF UP TO 20°

SUBSTRATE	LAMINATION / INITIAL COVERING / SEPARATING LAYER
Mineral wool panels (MW); Type DAA-dm for unused roofs	None
Polystyrene rigid foam panels (EPS); Type DAA-dm for unused roofs, Type DAA-dh also for used roofs, can be walked on	Raw glass fleece, B2
Polyurethane / polyiso rigid foam panels (PUR / PIR); Type DAA-dh and DAA-ds also for used roofs, can be walked on	Non-laminated or laminated on both sides with aluminium or mineral fleece
Supporting structure (solid, timber/ timber material, plain sheet)	Raw glass fleece, B2
Existing bituminous roof	None
Existing roof made of plastic or elastomer membranes	None

HERTALAN® EASY WELD MF

	THICKNESS IN mm	REMARKS
	1.3 1.5	• Observe the installation conditions specified by the insulation manufacturer. • Number and arrangement of membrane fasteners according to DIN EN 1991, the flat roof guidelines and the factory specifications.

6.4 BONDED ROOF STRUCTURES WITH HERTALAN® EASY WELD BASIC* WATERPROOFING MEMBRANE FOR A ROOF PITCH OF UP TO 20°

SUBSTRATE	LAMINATION / INITIAL COVERING / SEPARATING LAYER	THICKNESS IN mm
Polyurethane / polyiso rigid foam panels (PUR / PIR); Type DAA-dh and DAA-ds also for used roofs, can be walked on	Non-laminated or laminated on both sides with aluminium or mineral fleece	1.3 1.5
Supporting structure (solid, timber / timber material)	None	
Existing bituminous roof	None	
Existing roof made of plastic or elastomer membranes; consultation with Application Technology required	None	

* THE SURFACE BONDING OF HERTALAN® EASY WELD BASIC MEMBRANES IS NOT A STANDARD VARIANT, BUT IS POSSIBLE FROM AN APPLICATION TECHNOLOGY PERSPECTIVE.

HERTALAN® EASY WELD BASIC

SUBSTRATE ADHESIVE	ADHESIVE CONSUMPTION IN g/m²	REMARKS
Partial or full surface bonding with HERTALAN® KS 143 adhesive (Minimum surface area of 50 %)	Approx. 225 in the case of partial surface bonding	• Observe the installation conditions specified by the insulation manufacturer. • Number and arrangement of membrane fasteners according to DIN EN 1991, the flat roof guidelines and the factory specifications. • Take additional measures against slipping if necessary.

6.5 INSTALLATION OF EASY COVER WATERPROOFING SHEETS OR HERTALAN® EASY WELD BASIC* WATERPROOFING MEMBRANE WITH BALLASTING / GREEN VEGETATION / WEARING LAYER THAT CAN BE WALKED ON

USE	SUBSTRATE / INSULATION TYPE	BALLASTING / GREEN VEGETATION / WEARING LAYER
Not used	Type of insulation at least DAA-dm, DUK-dh (for inverted roof) or Supporting structure without thermal insulation or Existing roof	Gravel, paving slabs Extensive green vegetation
Used, can be walked on	Type of insulation DAA-dh, DUK-dh (for inverted roof) or Supporting structure without thermal insulation or Existing roof	Wearing layers of roofs that can be walked on (eg: balconies, terraces and walkways) Intensive green vegetation

*** The loose laying and surface bonding of HERTALAN® EASY WELD BASIC membranes are not standard variants, but are possible from an application technology perspective.**

HERTALAN® EASY COVER HERTALAN® EASY WELD BASIC

	THICKNESS IN mm	REMARKS
	1.3 1.5	• The installation conditions specified by the insulation manufacturer must be observed. • No separating layers are required between the insulating layer and the waterproofing product. • Protective layers must be arranged between the waterproofing product and the ballasting / green vegetation / wearing layer. • Additional measures against slipping must be taken if necessary.
	1.5	• The type and dimensions of the ballast depend on the use, wind suction load and static loading capacity of the supporting structure. • In the event of refurbishment of existing roofs, the condition of the existing roof structure must be checked in advance. • The individual layers including the waterproofing product should be full surface bonded if there is intensive green vegetation. • It is advisable to full surface bond the waterproofing product on inverted roofs.

7. Additional information for the individual application variants

7.1 MECHANICAL FIXATION

GENERAL SUBSTRATE REQUIREMENTS	· Smooth, free from stresses, bubbles, folds, sharp edges, ridges and roughness, damaging joints, etc. · A suitable protective layer must be arranged on the underlay if necessary. · A suitable separating layer must be arranged if necessary on substrates that are materially incompatible.
ROOF PITCH	Max. 20°
TYPE OF FIXATION	· **HERTALAN® EASY COVER / HERTALAN® EASY COVER FR waterproofing sheet:** Field fixation with individual fasteners in the induction method
	· **HERTALAN® EASY WELD MF waterproofing membrane:** Seam fixation with individual fasteners
ADDITIONAL MEASURES TO ABSORB HORIZONTAL FORCES AT THE EDGE OF THE ROOF AND IN FRONT OF RISING COMPONENTS	· **HERTALAN® EASY COVER / HERTALAN® EASY COVER FR waterproofing sheet:** Full surface bonding of the sheet on an adhesive, stable substrate with KS 137 or KS 205, otherwise mechanical fixation of a chamfered, metallic profile plus full-surface bonding of the waterproofing sheet on a profile with KS 137 or KS 205; bonding horizontally min. 150 mm, vertically min. 120 mm
	· **HERTALAN® EASY WELD MF waterproofing membrane:** Linear, mechanical fixation of the waterproofing product with the sub-structure using individual fasteners, min. 4 pcs./m

7.2 SUBSTRATE BONDING

GENERAL SUBSTRATE REQUIREMENTS	• Free from dust and grease, smooth, secure against wind suction, free from stresses, bubbles, folds, sharp edges, ridges and roughness, damaging joints • Dry, free from frost (ambient temperature min. +5°C)	
ROOF PITCH	Max. 20°	
TYPE OF BONDING	Partial surface bonding with KS 143 PU adhesive (minimum surface area of 50%)	Full surface bonding with KS 143 PU adhesive
ADHESIVE CONSUMPTION	Approx. 225 g/m²	Approx. 550 g/m²
ADDITIONAL MEASURES TO ABSORB HORIZONTAL FORCES AT THE EDGE OF THE ROOF AND IN FRONT OF RISING COMPONENTS	• **HERTALAN® EASY COVER / HERTALAN® EASY COVER FR waterproofing sheet:** Full surface bonding of the sheet on an adhesive, stable substrate with HERTALAN® KS 137 or HERTALAN® KS 205, otherwise mechanical fixation of a chamfered, metallic profile plus full surface bonding of the waterproofing sheet on a profile with HERTALAN® KS 137 or HERTALAN® KS 205; bonding horizontally min. 150 mm, vertically min. 120 mm	

7.3 APPLICATION OF HERTALAN® EASY COVER SHEETS OR EASY WELD BASIC* MEMBRANES UNDER UNUSED ROOFS WITH BALLASTING OR UNDER WEARING LAYERS THAT CAN BE WALKED ON

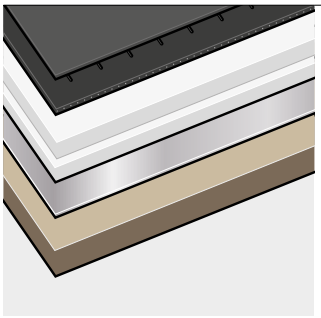
GENERAL SUBSTRATE REQUIREMENTS	• Smooth, free from stresses, bubbles, folds, sharp edges, ridges and roughness, damaging joints, etc. • A suitable protective layer must be arranged on the underlay if necessary. • A suitable separating layer must be arranged if necessary on substrates that are materially incompatible.
ROOF PITCH	Depending on the application type and ballasting/ green vegetation/wearing layer
TYPE OF FIXATION	Either loose laid, bonded or mechanically fixed
ADDITIONAL MEASURES TO ABSORB HORIZONTAL FORCES AT THE EDGE OF THE ROOF AND IN FRONT OF RISING COMPONENTS	**HERTALAN® EASY COVER waterproofing sheet:** Full surface bonding of the sheet on an adhesive, stable substrate with HERTALAN® KS 137 or HERTALAN® KS 205, otherwise mechanical fixation of a chamfered, metallic profile plus full surface bonding of the waterproofing sheet on a profile with HERTALAN® KS 137 or HERTALAN® KS 205; bonding horizontally min. 150 mm, vertically min. 120 mm **HERTALAN® EASY WELD BASIC or MF waterproofing membrane:** Linear, mechanical fixation of the waterproofing product with the sub-structure using individual fasteners, min. 4 pcs./m

* THE LOOSE LAYING AND SURFACE BONDING OF HERTALAN® EASY WELD BASIC MEMBRANES ARE NOT STANDARD VARIANTS, BUT ARE POSSIBLE FROM AN APPLICATION TECHNOLOGY PERSPECTIVE.

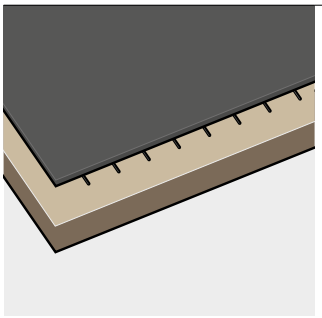
8. Selected roof structures / sample applications

The following sample applications and diagrams are used to illustrate the roof structures described in the sections above. However, at this point, we can only give you a selection of all the possible combinations or application variants. Please contact the technical team for specific and detailed requirements as well as individual installation instructions.

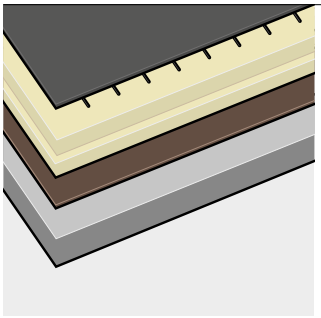
8.1 BONDED APPLICATION OF HERTALAN® EASY COVER OR HERTALAN® EASY WELD BASIC



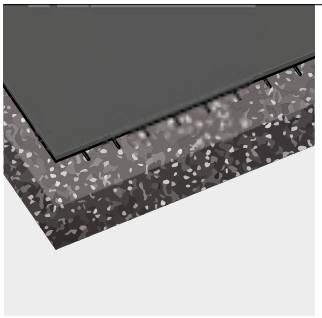
- **HERTALAN® EASY COVER** or **HERTALAN® EASY WELD BASIC** with **HERTALAN® KS 143**
- Initial covering or lamination made of bitumen membrane with glass liner
- EPS rigid foam
- ALUTRIX® FR / ALUTRIX® 600
- Timber



- **HERTALAN® EASY COVER** or **HERTALAN® EASY WELD BASIC** with **HERTALAN® KS 143**
- Timber

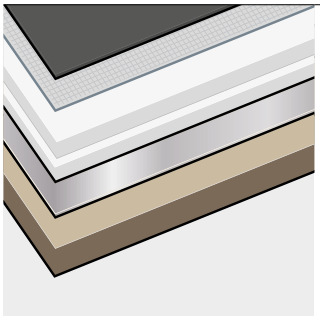


- **HERTALAN® EASY COVER** or **HERTALAN® EASY WELD BASIC** with **HERTALAN® KS 143**
- PUR / PIR rigid foam
- Bitumen vapour barrier membrane on primer
- Concrete

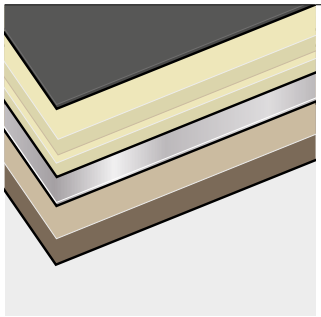


- **HERTALAN® EASY COVER** or **HERTALAN® EASY WELD BASIC** with **HERTALAN® KS 143**
- Existing bituminous roof
- Other existing roof substrates following consultation with our technical team

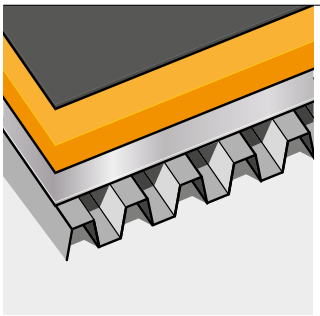
8.2 MECHANICAL FIXATION OF HERTALAN® EASY COVER / HERTALAN® EASY COVER FR OR HERTALAN® EASY WELD MF



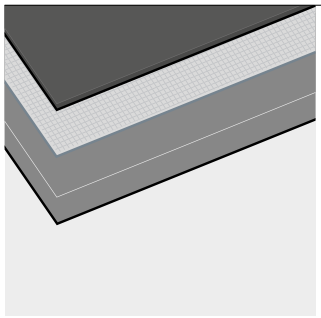
- **HERTALAN® EASY COVER FR** or **HERTALAN® EASY WELD MF**
- Raw glass fleece
- EPS rigid foam
- ALUTRIX® FR / ALUTRIX® 600
- Timber



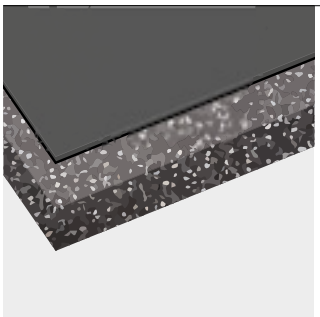
- **HERTALAN® EASY COVER FR** or **HERTALAN® EASY WELD MF**
- PUR / PIR rigid foam
- ALUTRIX® FR / ALUTRIX® 600
- Timber



- **HERTALAN® EASY COVER FR** or **HERTALAN® EASY WELD MF**
- Mineral wool
- ALUTRIX® FR / ALUTRIX® 600
- Trapezoidal steel profile

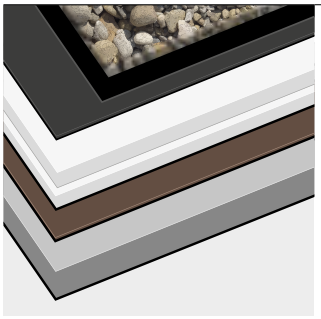


- **HERTALAN® EASY COVER FR** or **HERTALAN® EASY WELD MF**
- Raw glass fleece
- Concrete

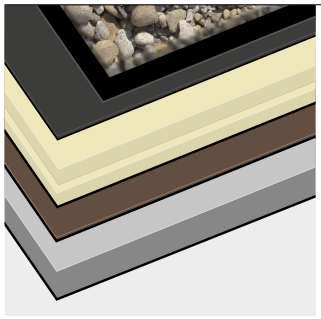


- **HERTALAN® EASY COVER FR** or **HERTALAN® EASY WELD MF**
- Existing roof made of bitumen or plastic / elastomer membranes

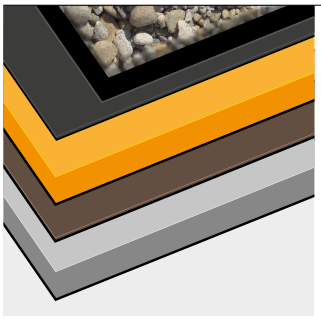
8.3 LOOSE LAYING OF HERTALAN® EASY COVER OR HERTALAN® EASY WELD BASIC WITH GRAVEL BALLAST



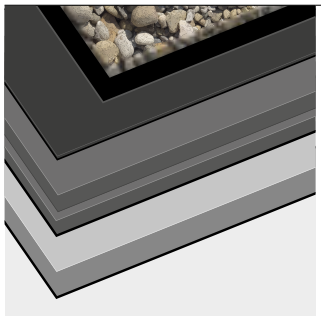
- Gravel
- Protective layer
- **HERTALAN® EASY COVER** or **HERTALAN® EASY WELD BASIC**
- EPS rigid foam
- Bitumen vapour barrier membrane on primer
- Concrete



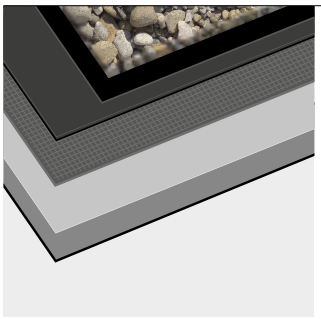
- Gravel
- Protective layer
- **HERTALAN® EASY COVER** or **HERTALAN® EASY WELD BASIC**
- PUR / PIR rigid foam
- Bitumen vapour barrier membrane on primer
- Concrete



- Gravel
- Protective layer
- **HERTALAN® EASY COVER** or **HERTALAN® EASY WELD BASIC**
- Mineral wool
- Bitumen vapour barrier membrane on primer
- Concrete



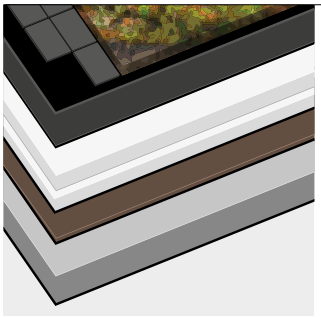
- Gravel
- Protective layer
- **HERTALAN® EASY COVER** or **HERTALAN® EASY WELD BASIC**
- Cellular glass in hot bitumen, with initial covering made of bitumen membrane in hot bitumen
- Concrete



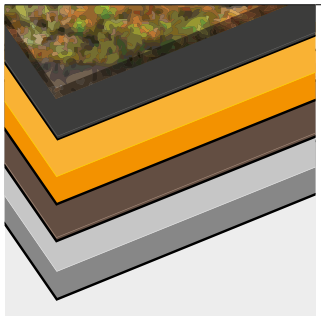
- Gravel
- Protective layer
- **HERTALAN® EASY COVER** or **HERTALAN® EASY WELD BASIC**
- Protective layer, e.g. made of plastic fleece, 300 g/m²
- Concrete

- Gravel
- Protective layer
- **HERTALAN® EASY COVER** or **HERTALAN® EASY WELD BASIC**
- Existing roof made of bitumen or plastic / elastomer membranes

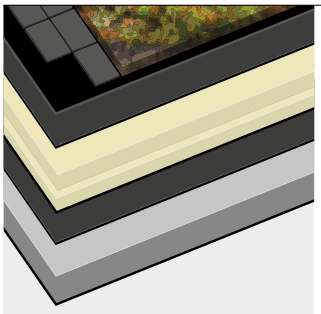
8.4 ROOFS THAT CAN BE WALKED ON, HAVE GREEN VEGETATION AND ARE COVERED WITH HERTALAN® EASY COVER OR HERTALAN® EASY WELD BASIC



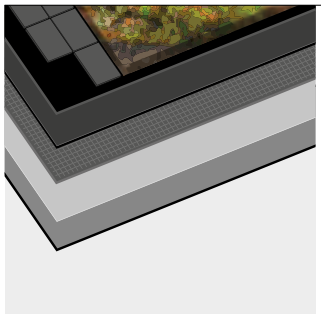
- Terrace structure on a suitable protective layer or roof vegetation
- **HERTALAN® EASY COVER** or **HERTALAN® EASY WELD BASIC**
- EPS rigid foam
- Bitumen vapour barrier membrane on primer
- Concrete



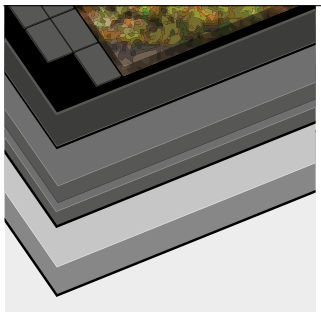
- Extensive roof vegetation
- **HERTALAN® EASY COVER** or **HERTALAN® EASY WELD BASIC**
- Mineral wool
- Bitumen vapour barrier membrane on primer
- Concrete



- Terrace structure on a suitable protective layer or roof vegetation
- **HERTALAN® EASY COVER** or **HERTALAN® EASY WELD BASIC**
- PUR / PIR
- Bitumen vapour barrier membrane on primer
- Concrete



- Terrace structure on a suitable protective layer or roof vegetation
- **HERTALAN® EASY COVER** or **HERTALAN® EASY WELD BASIC**
- Protective layer, e.g. made of plastic fleece, 300 g/m²
- Concrete



- Terrace structure on a suitable protective layer or roof vegetation
- **HERTALAN® EASY COVER** or **HERTALAN® EASY WELD BASIC**
- Cellular glass in hot bitumen, with initial covering made of bitumen membrane in hot bitumen
- Concrete

- Terrace structure on a suitable protective layer or roof vegetation
- **HERTALAN® EASY COVER** or **HERTALAN® EASY WELD BASIC**
- Existing roof made of bitumen or plastic / elastomer membranes

9. Formation of joints and junctions on sloping and vertical surfaces

SURFACE WATERPROOFING	HERTALAN® EASY COVER / HERTALAN® EASY COVER FR WATERPROOFING SHEET	HERTALAN® EASY WELD WATERPROOFING MEMBRANE
GENERAL SUBSTRATE REQUIREMENTS	• Free from dust and grease, smooth, secure against wind suction, free from stresses, bubbles, folds, sharp edges, ridges and roughness, damaging joints • Dry, free from frost (ambient temperature min. +5 °C)	
FORMATION IN PRINCIPLE	Starting or continuation of the waterproofing sheet from surface covering; Formation with separate connecting strips made of HERTALAN® EASY WELD waterproofing membrane if necessary	Formation with separate connecting strips made of HERTALAN® EASY WELD
FIXATION	Full surface, stable bonding with HERTALAN® KS 137 or HERTALAN® KS 205 contact adhesive, application on both sides; Protection against water ingress on the top; additional measures to absorb horizontal forces	
ADHESIVE CONSUMPTION	HERTALAN® KS 137: approx. 500 g/m² HERTALAN® KS 205: approx. 300 g/m²	
SUBSTRATE VARIANTS	Mineral materials, bitumen membranes, insulating materials laminated with bitumen, timber, timber materials, metals (degreased), plastics (free from plasticisers), various plastic and elastomer membranes (following consultation with our technical team)	

10. Formation of corners

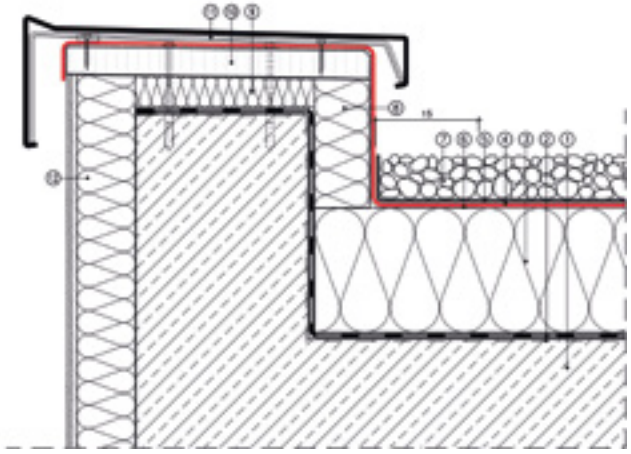
If the fit is accurate, internal and external corners are optimally formed and created using separate, three-dimensional moulded parts with factory-installed EW joining edges. The moulded parts are welded with hot air. Alternatively, corners are formed and created with separate cut-outs, preferably made of HERTALAN® FLASH WELD or HERTALAN® EASY WELD seam tape. Both supplementary strips are full surface welded using hot air.

11. Technical drawings, standard details

11.1 FIXING EDGES

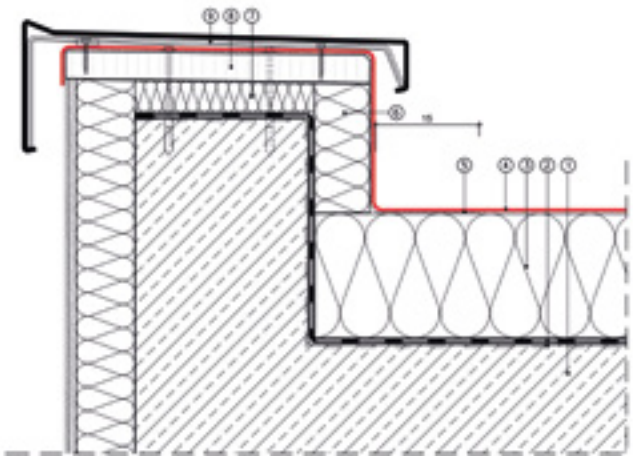
11.1.1 Loose-laid and ballasted

1. Concrete deck
2. Vapour barrier membrane, e.g. G200 S4 Al, bituminous primer
3. PUR / PIR bonded, as per the manufacturer's instructions
4. HERTALAN® EASY COVER, loose-laid
5. Polyester fleece, 300g/m²
6. Edge fixation with HERTALAN® KS 205 (275 g/m²) or HERTALAN® KS 137 (500 g/m²), vertical min. 120 mm, horizontal min. 150 mm
7. Gravel, 16 / 32 round grain, min, 50 mm
8. PUR / PIR thermal insulation
9. Pressure resistant insulation
10. Multi layer panel throughout
11. Parapet cover, aluminium or similar, mechanically fixed
12. Thermal insulation system



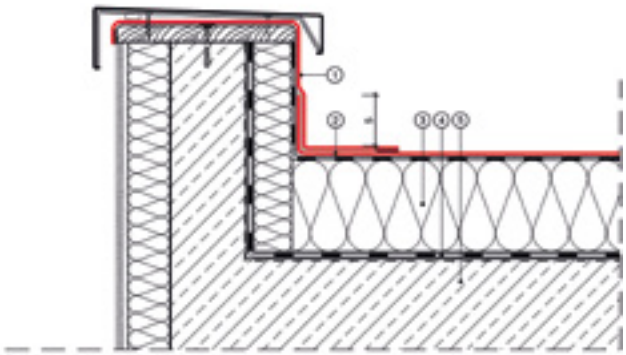
11.1.2 Applied by means of bonding

1. Concrete deck
2. Vapour barrier membrane, e.g. G200 S4 Al, bituminous primer
3. PUR / PIR bonded, as per the manufacturer's instructions
4. HERTALAN® EASY COVER, applied by means of bonding with HERTALAN® KS 143
5. PUR / PIR thermal insulation
6. Pressure resistant insulation
7. Multi layer panel throughout
8. Parapet cover, aluminium or similar, mechanically fixed
9. Thermal insulation system



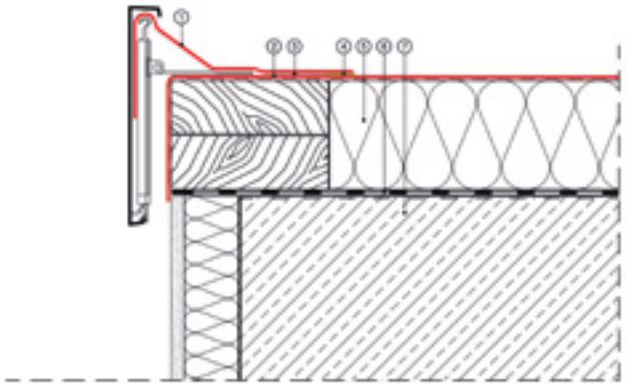
11.2 FINISHING UP-STAND

1. HERTALAN® EASY WELD
   bonded with HERTALAN® KS 205 / KS 137
2. HERTALAN® EASY COVER
   bonded with HERTALAN® KS 143 (surface)
3. PUR / PIR insulation, bonded acc. to manufacturer
4. Bitumen vapour barrier
5. Concrete



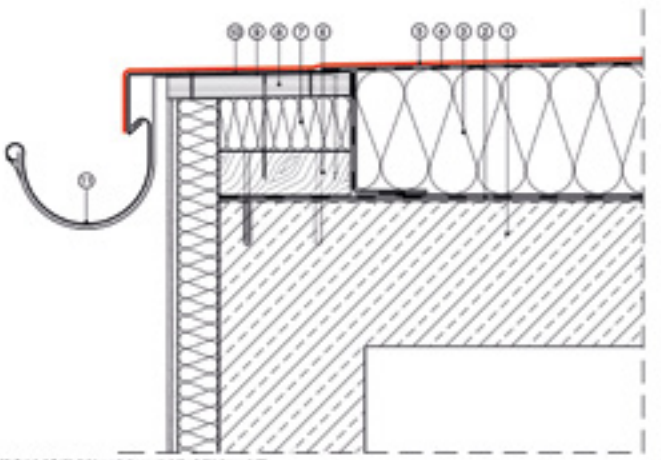
11.3 FINISHING ROOF EDGES

1. HERTALAN® EASY WELD
2. HERTALAN® EASY COVER
   bonded with HERTALAN® KS 143
3. Bonding with HERTALAN® KS 205 / KS 137
4. EW joining edge
5. PUR / PIR insulation
6. G 200 S4-Al vapour barrier on primer
7. Concrete



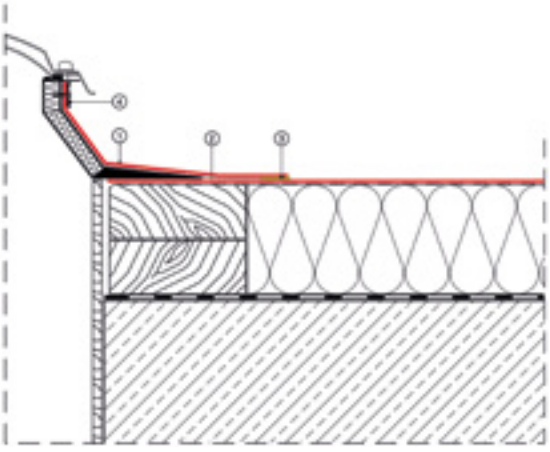
11.4 GUTTER DRAINAGE

1. Concrete deck
2. Vapour barrier membrane, e.g. V60 S4 Al, bituminous primer
3. EPS insulation
4. Cold-applied, self adhesive membrane
5. HERTALAN® EASY COVER, loose-laid
6. Wooden plank
7. Pressure resistant insulation
8. Multi layer panel throughout
9. Iron gutter bracket
10. Zinc suspension plate
11. Bracket mounted roof gutter made of zinc plate membrane bonded with HERTALAN® KS 205



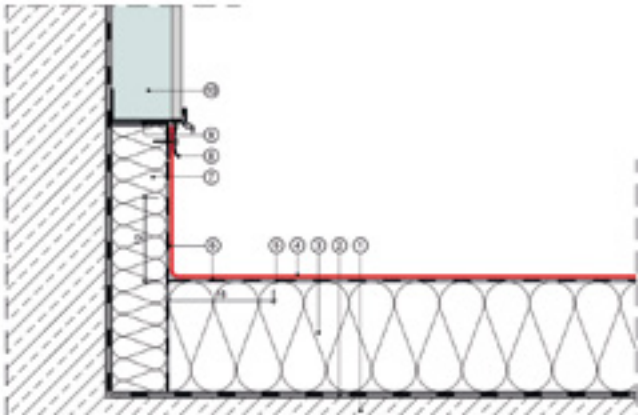
11.5 SKYLIGHT CONNECTION

1. HERTALAN® EASY WELD bonded with HERTALAN® KS 205 / KS 137
2. HERTALAN® EASY COVER bonded with HERTALAN® KS 143
3. EW joining edge, 40 mm
4. Finish, e.g. flange profile



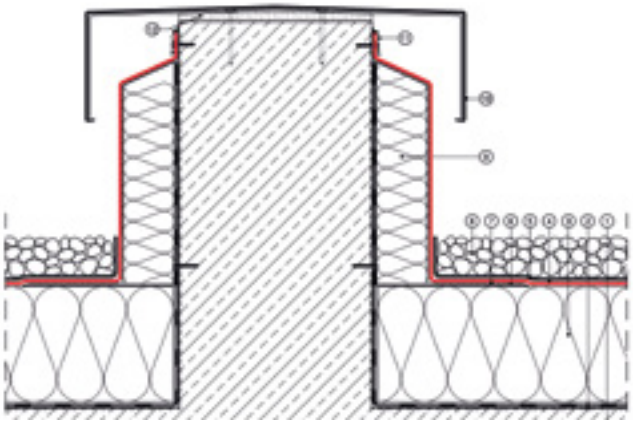
11.6 WALL CONNECTION

1. Concrete deck
2. Vapour barrier membrane, e.g. V60 S4 Al, bituminous primer
3. EPS insulation
4. HERTALAN® EASY COVER, loose laid
5. Cold-applied, self-adhesive membrane
6. Edge fixation with HERTALAN® KS 205 (275 g/m²) or HERTALAN® KS 137 (500 g/m²), vertical min. 120 mm, horizontal min. 150 mm
7. PUR / PIR thermal insulation
8. Connection profile
9. Z profile
10. PUR / PIR thermal insulation



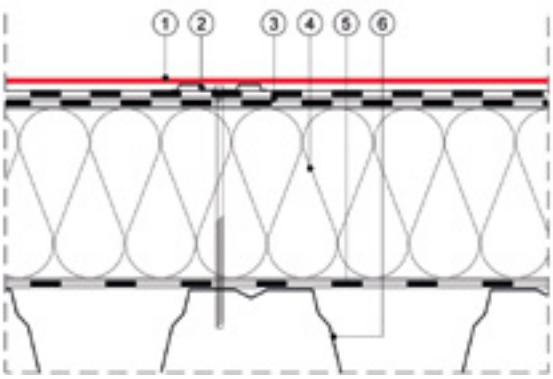
11.7 FIRE WALL

1. Concrete deck
2. Vapour barrier membrane, e.g. V60 S4 Al, bituminous primer
3. Mineral fibre insulation, loose laid
4. HERTALAN® EASY COVER, loose laid
5. Polyester fleece, 300 g/m²
6. Sheet metal bracket, 50 x 220 mm
7. Edge fixation with HERTALAN® KS 205 (275 g/m²) or HERTALAN® KS 137 (500 g/m²), vertical min. 120 mm, horizontal min. 150 mm
8. Gravel, 16 / 32 round grain, min, 50 mm
9. Megarock thermal insulation
10. Sheet metal cover
11. Wall connection profile
12. Non-flammable filling (e.g. smooth finish)



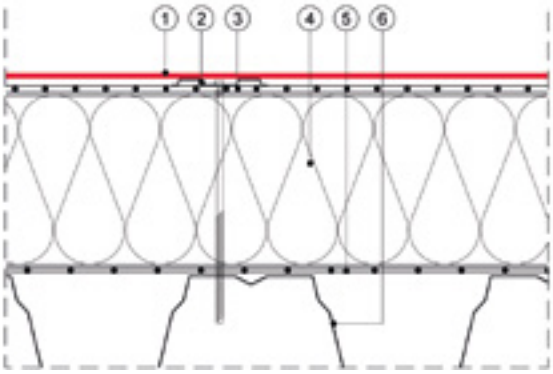
11.8 REFURBISHING A BITUMEN ROOF

1. HERTALAN® EASY COVER
2. Coated mounting plate (incl. screw)
3. Existing bitumen roof
4. EPS insulation
5. Bitumen vapour barrier
6. Trapezoidal steel sheet



11.9 REFURBISHING A PVC ROOF

1. HERTALAN® EASY COVER
2. Coated mounting plate (incl. screw)
3. PVC roofing membrane
4. Mineral fibre insulation
5. PE film
6. Trapezoidal steel sheet



12. Notes

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