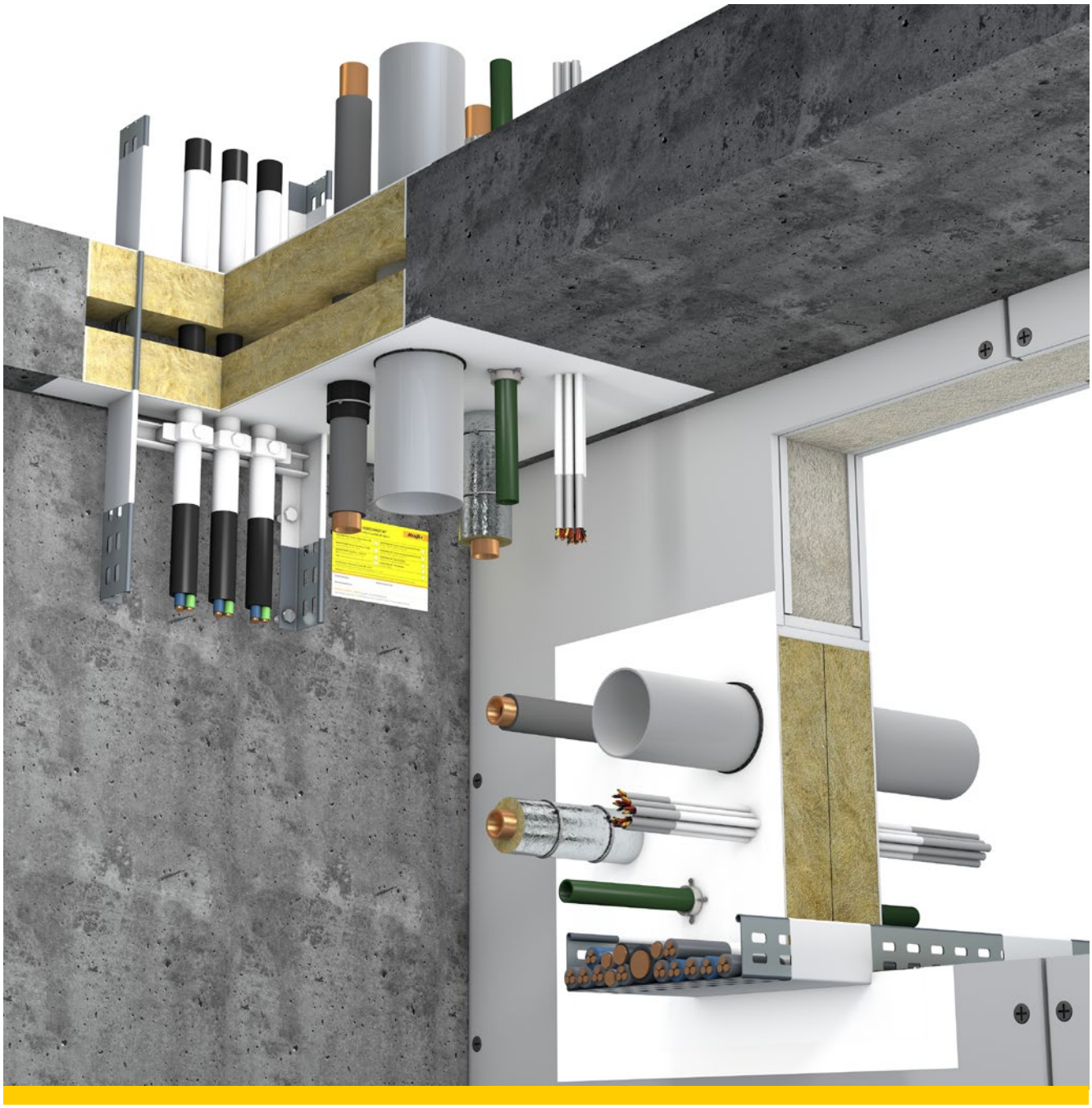
HENSOMASTIK®
Mixed Penetration Seal EI 90 / EI 120

According to the European Technical Assessment
ETA 20/1309 of 1/1/2021

Technical data sheet and assembly instructions for the
HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120



1. Technical description of the HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120

HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120 is a system consisting of 2 × ≥ 50 mm thick mineral fibre boards coated on the outsides with **HENSOMASTIK® 5 KS Farbe/viskos** and designed as a seal for metal pipes, plastic pipes, and electric cables serving to restore the fire safety of flexible walls and solid wall structures and solid floor structures carrying the various metal supply lines with insulation, plastic pipes, composite pipes, and electric cables.

HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120 does not contain any dangerous substances as defined in Directive 67/548/EEC and (EC) Directive No. 1272/2008 or on the EGDS Indicative List of Regulated Dangerous Substances with respect to the assembly conditions for the construction product and the resulting release scenarios.

The applicable usage category of **HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120** with respect to BWR 3 (hygiene, health, and environment) is IA/1, S/W3.

The resistance to wind load (positive and negative pressure) of the **HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120** has been tested positive according to DIN EN 12211.
Test report no. 311002506/2/2017 / HFB Engineering GmbH, Leipzig

2. Technical data of the penetration seal system components

2.1 HENSOMASTIK® 5 KS Farbe, HENSOMASTIK® 5 KS viskos, HENSOMASTIK® 5 KS SP

HENSOMASTIK® 5 KS is an ablative, medium-viscosity, and non-hygroscopic, water-based fire protection coating in the versions "**Farbe", "viskos",** and **"SP"**.
This is a dispersion coating we manufacture ourselves with organic binders, water, mineral fillers, pigments, and additives.
The fire protection coating **HENSOMASTIK® 5 KS** is part of the **Green Product** line at Rudolf Hensel GmbH, classified as "low emission", and it does not contain any solvents, borates, plasticisers, halogens, formaldehydes, or alkylphenol ethoxylates (APEs).

Properties of HENSOMASTIK® 5 KS
- Free from solvents and APEO, no VOC emissions
- Free from halogens, borates and plasticizers
- Resistant to mechanical stress
- Impermeable to water according to DIN 1048
- Resistant to oil and petrol
- Weatherproof and UV-resistant according to DIN 53 384
- Resistant against aging
- Also flexible in higher dry film thicknesses

Environment
- Environmental product declaration no. EPD-RHG-20190171-IAA1-EN
- DGNB Navigator registered: CDDWRA
- AgBB-tested, VOC emission class A+
- Very well suited for Minergie-(A-/P-)Eco / Correspond to priority 1 of Eco-BKP

Work safety: Processing **HENSOMASTIK® 5 KS** must comply with the regulations for work safety and environmental protection **GISCODE:** M-DF01
Before using **HENSOMASTIK® 5 KS Farbe/SP/viskos,** please consult its safety data sheet available as a PDF download from **www.rudolf-hensel.de**

Storage: The storage and transport temperatures must lie within +5 °C and +30 °C (free of frost!).
HENSOMASTIK® 5 KS Farbe/SP/viskos can be stored for up to twelve months in the original packaging. Carefully seal opened packaging after use!

Technical data and properties

Product versions	HENSOMASTIK® 5 KS Farbe	HENSOMASTIK® 5 KS viskos	HENSOMASTIK® 5 KS SP
Colour	White	White	White
Consistency	Liquid	Viscous	Highly viscous
Apparent density	1.28 – 1.42 g / cm³	1.27 – 1.41 g / cm³	1.28 – 1.45 g / cm³
Usage category with respect to weathering effects	Typ X: Also designed for outdoor use	Typ X: Also designed for outdoor use	Typ X: Also designed for outdoor use
Fire properties as defined in DIN EN 13501-1	Class E	Class E	Class E
VOC content	< 1 g / l	< 1 g / l	< 1 g / l
Classified and approved according to	ETAG 026-2	ETAG 026-2	ETAG 026-2
Application	• Material, surface and ambient air temperatures > +5 °C, relative humidity < 80 % • Before application stir up thoroughly with slow speed! • Application by brush, roller or airless spraying • Airless spraying: delivery capacity > 5.5 l/min; hose length max. 15 m; material pressure min. 200 bar • Remove filters from airless pump and spraying gun • Remove suction hose from airless pump • Nozzle size for airless spraying: 0.023" – 0.027" • Coverage rate: approx. 1.4 mm wet = 1.0 mm dry = approx. 1.8 kg/m² • Thinning with max. 3 % water	• Material, surface and ambient air temperatures > +5 °C, relative humidity < 80 % • Before application stir up thoroughly with slow speed! • Application by brush, roller or airless spraying • Airless spraying: delivery capacity > 5.5 l/min; hose length max. 15 m; material pressure min. 200 bar • Remove filters from airless pump and spraying gun • Remove suction hose from airless pump • Nozzle size for airless spraying: 0.025" – 0.031" • Coverage rate: approx. 1.4 mm wet = 1.0 mm dry = approx. 1.8 kg/m² • Thinning with max. 3 % water	• Material, surface and ambient air temperatures > +8 °C to max. +30 °C • Recommended material temperature > +15 °C • Application by trowel or out of the cartridge
	Check surface for appropriate adhesion! Free from dust, dirt, grease or other separating layers.		
	Clean working tools immediately after use with water!		
Work Safety	Use HENSOMASTIK® 5 KS Farbe, viskos and SP in accordance with all applicable local and national regulations.		
Giscode	M-DF01		
Environment, Health and Safety	As regulations are often revised please request for the actual safety data sheet, available as a PDF on **www.rudolf-hensel.de**, before using the product.		
Storage and transport	Storage and transport at min. ≥ +5 °C to max. +30 °C.		
	Free from frost!		
	Opened containers must be sealed carefully after use!		
Best before	At least 12 months in unopened containers.		

2.2 **Mineral fibre boards**
The tested and approved Hardrock 040 mineral fibre boards (complying with DIN EN 13162) in **HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120** exhibit an apparent density of about 150 kg/m³ and a melting point ≥ 1,000 °C and comply with EN 13501-1 construction material class A1 (non-combustible). Board thickness of the **HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120:** 2x ≥ 50 mm

2.3 **Pipe collars**
Air Fire Tech Rorcol V 30 / V 60 / AV 60
AWM II
HENSOTHERM® 7 KS Gewebe 50 as an intumescent pipe wrap for plastic pipes **up to Ø 160 mm** in the HENSOMASTIK® Mixed Penetration Sealing up to EI 120 in flexible walls, solid walls and floors.

2.4 **Sectional insulations for non-combustible pipes**

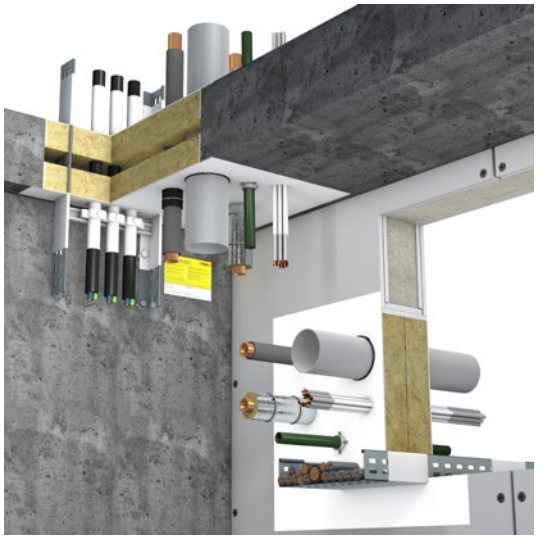
2.4.1 **ROCKWOOL RS 800** with a melting point ≥ 1,000 °C, non-combustible A2L-s1, d0 according to EN 13501-1
ROCKWOOL Klimarock: Non-combustible, A1

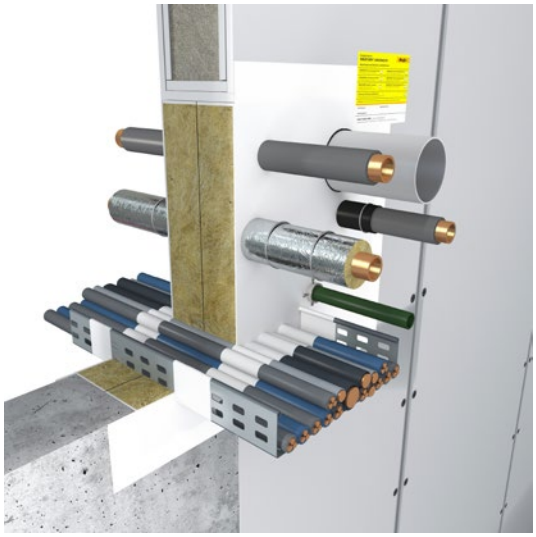
2.4.2 **Sectional insulations wrapped in HENSOTHERM® 7 KS Gewebe 125**
HENSOTHERM® 7 KS Gewebe 125: For indoor and outdoor applications, usage categories: Y/Z1/Z2, highly flexible, fabric secured with clips, straps or galvanised wire.

Armaflex AF: Euroclass B/BL-s3,d0 according to EN 13501-1
Kaiflex ST: Euroclass BL-s3,d0 according to EN 13501-1
Armaflex Ultima: Euroclass BL-s1, d0
Armaflex LS: BL-s2, d0
Kaiflex KK plus: BL-s2, d0

Product versions	**HENSOTHERM® 7 KS Gewebe**	
	50 Measurement: 15,000 x 50 x 2 mm (LxWxH)	**125** Measurement: 10,000 x 125 x 1 mm (LxWxH)
Application	• Application on combustible pipes and synthetic rubber • Wrapping with the required number of layers • Fixing of the finished wrappings with duct tape • For more details, please consult the respective assembly instruction.	• Application on synthetic rubber • Wrapping with the required number of layers • Fixing of the finished wrappings with wiring • For more details, please consult the respective assembly instruction.
	HENSOTHERM® 7 KS Gewebe 50 and 125 can easily be cut by knife or scissors.	
	HENSOTHERM® 7 KS Gewebe 50 and 125 should not be overcoated!	
Work Safety	**Use HENSOTHERM® 7 KS Gewebe 50 and 125** in accordance with all applicable local and national regulations.	
Giscode	Inapplicable	
Environment, Health and Safety	As regulations are often revised please request for the actual safety data sheet before using the product.	
Storage and transport	In dry conditions	
Best before	At least 24 months	

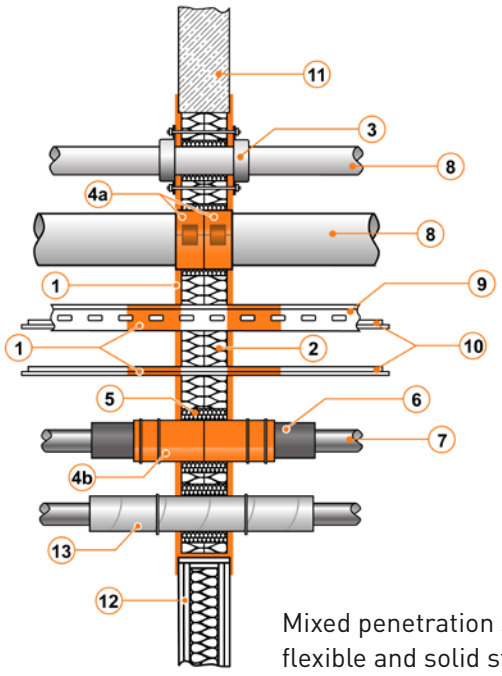
3. Overview of HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120



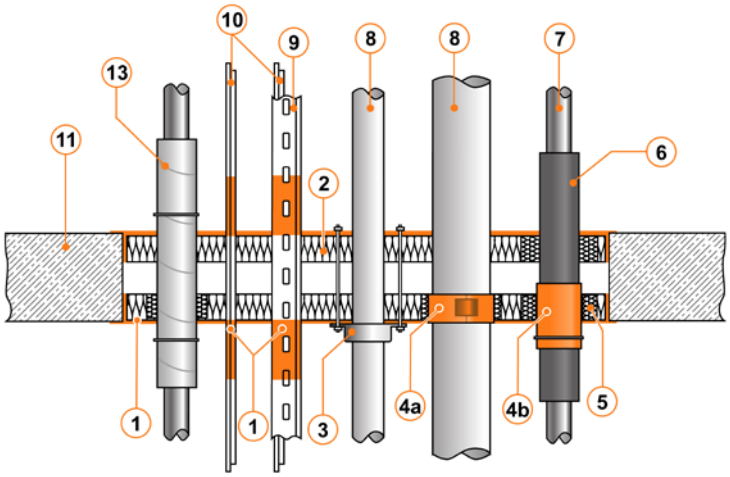


HENSOMASTIK® Mixed Penetration Seal systems are used to seal metal pipes, combustible pipes and electric cables, thereby restoring the fire safety of wall and floor structures provided with openings for supply lines.

HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120 in flexible, solid structural walls and rigid floors	
1	HENSOMASTIK® 5 KS Farbe or HENSOMASTIK® 5 KS viskos
2	Mineral fibre boards 2x ≥ 50 mm
3	Air Fire Tech Rorcol V30 / V60 / AV60 or AWM II
4a	HENSOTHERM® 7 KS Gewebe 50
4b	HENSOTHERM® 7 KS Gewebe 125
5	HENSOMASTIK® 5 KS SP
6	Sectional insulation
7	Non-combustible pipes
8	Combustible pipes
9	Cable tray
10	Electric cables
11	Solid structural wall
12	Flexible wall
13	ROCKWOOL RS 800
14	Labelling plate



Mixed penetration seal in flexible and solid structural walls



Mixed penetration seal in rigid floors

4. Applications of HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120

Flexible walls

The wall must be at least 100 mm thick and consist of a wood or steel strut frame* lined on both sides with at least two layers of 12.5 mm thick fire protection boards.

* There must be a minimum distance of 100 mm between the seal and the supports, and this gap must be filled with at least 100 mm of Class A1 or A2 insulating material (as defined in EN 13501-1). The supporting structure must have been classified for the required fire resistance period as defined in EN 13501-2.

Solid structural walls

The wall must be at least 100 mm thick and be of concrete, aerated concrete, or masonry with a minimum density of 650 kg / m³.

HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120 in flexible and solid structural walls

Installation situation	Thickness of mineral fibre boards	Max sealant size in m² / H x W
Lightweight wall ≥ 100 mm	2 x ≥ 50 mm	2.4 m² 2,000 mm x 1,200 mm
Solid wall ≥ 100 mm	2 x ≥ 50 mm	2.4 m² 2,000 mm x 1,200 mm

Rigid floors

The floor thickness must be at least 150 mm thick and built out of concrete, aerated concrete, or masonry with a minimum density of 650 kg / m³.

HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120 in rigid floors

Installation situation	Thickness of mineral fibre boards	Max sealant size in m² / H x W
Rigid floors ≥ 150 mm	2 x ≥ 50 mm	2.4 m² 2,000 mm x 1,200 mm

HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120 can be used as sealant in conjunction with insulated metal pipes, combustible pipes, and electric cables, single or bundled.

The maximum **sealing size in flexible and solid structural wall structures** is 2,000 mm × 1,200 mm (H × W) and in **rigid floor** structures 2,000 mm × 1,200 mm.
Also an empty seal can be installed. Supply lines must be protected at a max distance of 250 mm from both sides of the wall structure and from the top of the floor structure.

LS = local sustained in the sealing area | **LI = local interrupted** in the sealing area

Pipe end configuration	Test condition		
	U/U	C/U	U/C
In the furnace	Uncapped	Capped	Uncapped
On the outside	Uncapped	Uncapped	Capped

NOTE: These assembly instructions are for your consultation. They do not serve in lieu of the details in the underlying European Technical Assessment **ETA 20/1309**. The complete ETA 20/1309 must be printed out and made available at the installation site.

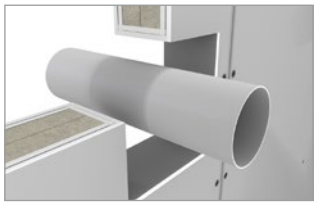
5. Assembly instructions for HENSOTHERM® 7 KS Gewebe 50

HENSOTHERM® 7 KS Gewebe 50 pipe wrap for plastic and composite pipes in the HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120

- Intumescent pipe wrap for sealing plastic and composite pipes **up to Ø 160 mm** in flexible walls, solid walls and solid floors
- Flexible; easy and fast installation
- Low space requirement due to low installation height
- Measurements of the pipe wrap 50 mm width, 2 mm thick and 15 m long
- **The following combustible pipes are certified:** PV C-U, PE-HD, PP-HT, Geberit Silent-db20, Geberit Silent-PP, Geberit Mepla, KE KELIT KELOX, POLO-KAL NG, POLO-KAL 3S, RAUPIANO PLUS, Flex-Schlauch
- **ETA 16/0369** and **ETA 20/1309**

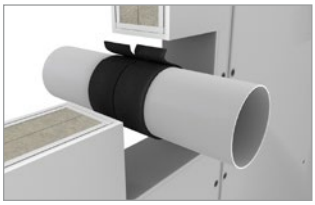
Outer pipe diameter	Installation	Number of layers	Material requirements in wall installation	Material requirements in floor installation
32 mm	Wall / Floor	2	2x 250 mm	250 mm
40 mm	Wall / Floor	2	2x 300 mm	300 mm
50 mm	Wall / Floor	2	2x 360 mm	360 mm
56 mm	Wall / Floor	2	2x 420 mm	420 mm
63 mm	Wall / Floor	3	2x 680 mm	680 mm
75 mm	Wall / Floor	3	2x 790 mm	790 mm
90 mm	Wall / Floor	4	2x 1,250 mm	1,250 mm
110 mm	Wall / Floor	4	2x 1,500 mm	1,500 mm
125 mm	Wall / Floor	5	2x 2,160 mm	2,160 mm
140 mm	Wall / Floor	6	2x 2,890 mm	2,890 mm
160 mm	Wall / Floor	6	2x 3,260 mm	3,260 mm

Assembly instructions:

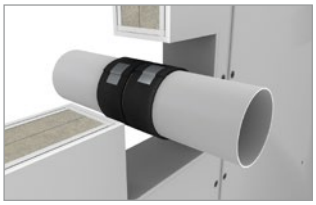


Clean reveals and rough opening

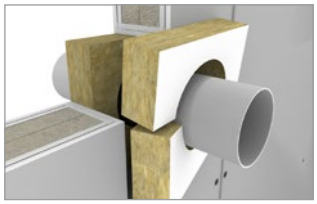
Cut **HENSOTHERM® 7 KS Gewebe 50** to size acc. to the requirements



Wrapping* of both sides of the combustible pipe flush with the surface of the penetration seal



Fixing of the finished wrappings with duct tape



Professional installation of the **HENSOMASTIK® Mixed Penetration Seal**

Sealing of the ring gap with **HENSOMASTIK® 5 KS SP**

Smoothening of the surface with a spatula

Marking of the **HENSOMASTIK® Mixed Penetration Seal**

*** IMPORTANT!** When mounting of **HENSOTHERM® 7 KS Gewebe 50,** ensure that the site with the batch number shown must remain visible!

6. Assembly instructions for HENSOTHERM® 7 KS Gewebe 125

HENSOTHERM® 7 KS Gewebe 125 pipe wrap for incombustible pipes with insulation in the HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120

Installation in lightweight and solid walls

Copper and steel pipes with Armaflex Ultima and HENSOTHERM® 7 KS Gewebe 125

Pipes	Pipe diameter [mm]	Pipe wall thickness [mm]	Layers of HENSOTHERM® 7 KS Gewebe 125	Insulation thickness [mm]	Insulation length [mm]	Classification
Copper and steel	≤ 15	1.0 – 14.2	2	13 – 25	1,000 mm (LS)	EI 120 U/C
	≤ 15	1.0 – 14.2	2	13 – 25	(CS)	
	> 15 ≤ 54	1.5 – 14.2	2	25	1,000 mm (LS)	EI 90 U/C
	> 15 ≤ 54	1.5 – 14.2	2	25	(CS)	
Steel	> 54 ≤ 88.9	3.2 – 14.2	2	25	1,000 mm (LS)	EI 120 U/C
	> 54 ≤ 88.9	3.2 – 14.2	2	25	(CS)	EI 90 U/C

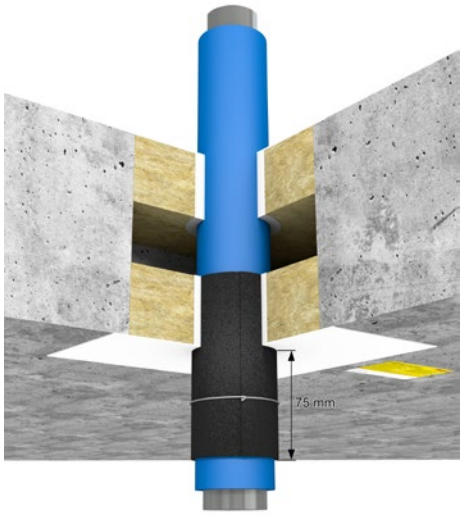
Copper and steel pipes with Armaflex LS and HENSOTHERM® 7 KS Gewebe 125

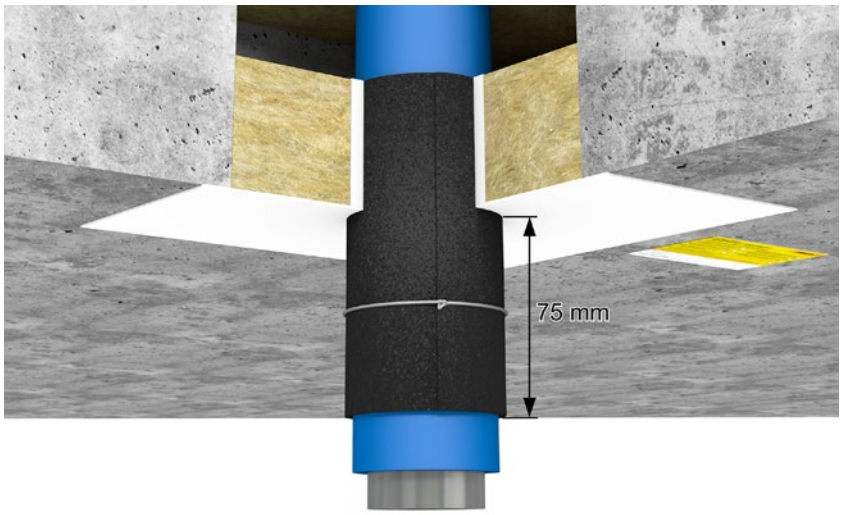
Pipes	Pipe diameter [mm]	Pipe wall thickness [mm]	Layers of HENSOTHERM® 7 KS Gewebe 125	Insulation thickness [mm]	Insulation length [mm]	Classification
Copper and steel	≤ 15	1.0 – 14.2	2	13 – 25	1,000 mm (LS)	EI 120 U/C
	≤ 15	1.0 – 14.2	2	13 – 25	(CS)	EI 120 U/C
	> 15 ≤ 54	1.5 – 14.2	2	25	(CS)	
Steel	88.9	3.2 – 14.2	2	25	1,000 mm (LS)	EI 90 U/C
	> 54 ≤ 88.9	3.2 – 14.2	2	25	(CS)	

Copper and steel pipes with Kaiflex KK plus and HENSOTHERM® 7 KS Gewebe 125

Pipes	Pipe diameter [mm]	Pipe wall thickness [mm]	Layers of HENSOTHERM® 7 KS Gewebe 125	Insulation thickness [mm]	Insulation length [mm]	Classification
Steel	88.9	3.2 – 14.2	2	28.5	1,000 mm (LS)	EI 120 U/C
	> 54 ≤ 88.9	3.2 – 14.2	2	28.5	(CS)	EI 90 U/C
	88.9	3.2 – 14.2	2	28.5	(CS)	EI 120 U/C

6.1 Assembly instructions for HENSOTHERM® 7 KS Gewebe 125





Installation in rigid floors

Copper and steel pipes with Armaflex AF and HENSOTHERM® 7 KS Gewebe 125

Pipes	Pipe diameter [mm]	Pipe wall thickness [mm]	Layers of HENSOTHERM® 7KS Gewebe 125	Insulation thickness [mm]	Insulation length [mm]	Classification
Steel and cast iron	≤10	1.0 – 5.0	2	11	1,000 mm (LS)	EI 120 C/U
	≤22	1.0 – 11	2	18	1,000 mm (LS)	
	≤54	1.5 – 14.2	2	28.5	1,000 mm (LS)	EI 90 C/U
	≤60.3	2.9 – 14.2	2	29	1,000 mm (LS)	EI 120 C/U
	≤88.9	3.2 – 14.2	2	30.5	1,000 mm (LS)	EI 90 C/U
Copper	≤10	1.0 – 5.0	2	12.5	1,000 mm (LS)	EI 120 C/U
	≤22	1.0 – 11	2	18	1,000 mm (LS)	
	≤54	1.5 – 14.2	2	28.5	1,000 mm (LS)	EI 90 C/U

Copper and steel pipes with Armaflex Ultima and HENSOTHERM® 7 KS Gewebe 125

Pipes	Pipe diameter [mm]	Pipe wall thickness [mm]	Layers of HENSOTHERM® 7KS Gewebe 125	Insulation thickness [mm]	Insulation length [mm]	Classification
Copper and steel	≤15	1.0 – 14.2	2	13	1,000 mm (LS)	EI 120 U/C
	>15 ≤54	1.5 – 14.2	2	25	1,000 mm (LS)	
	≤15	1.0 – 14.2	2	13	(CS)	EI 90 U/C
	>15 ≤54	1.5 – 14.2	2	25	(CS)	
Steel	54	1.5 – 14.2	2	25	(CS)	EI 120 U/C
	>54 ≤88.9	3.2 – 14.2	2	25	1,000 mm (LS)	
	>54 ≤88.9	3.2 – 14.2	2	25	(CS)	

6.1 Assembly instructions for HENSOTHERM® 7 KS Gewebe 125 in rigid floors

Copper and steel pipes with Armaflex LS and HENSOTHERM® 7 KS Gewebe 125

Pipes	Pipe diameter [mm]	Pipe wall thickness [mm]	Layers of HENSOTHERM® 7 KS Gewebe 125	Insulation thickness [mm]	Insulation length [mm]	Classification
Copper and steel	≤ 15	1.0 – 14.2	2	13	1,000 mm (LS)	EI 90 U/C
	≥ 15 ≤ 54	1.5 – 14.2	2	25	1,000 mm (LS)	
	54	1.5 – 14.2	2	25	1,000 mm (LS)	EI 120 U/C
	≤ 15	1.0 – 14.2	2	13	(CS)	
	> 15 ≤ 54	1.5 – 14.2	2	25	(CS)	
Steel	> 54 ≤ 88.9	3.2 – 14.2	2	25	1,000 mm (LS)	
	> 54 ≤ 88.9	3.2 – 14.2	2	25	(CS)	

Copper and steel pipes with Kaiflex KK plus and HENSOTHERM® 7 KS Gewebe 125

Pipes	Pipe diameter [mm]	Pipe wall thickness [mm]	Layers of HENSOTHERM® 7 KS Gewebe 125	Insulation thickness [mm]	Insulation length [mm]	Classification
Copper and steel	≤ 15	1.0 – 14.2	2	11	1,000 mm (LS)	EI 90 U/C
	≥ 15 < 54	1.0 – 14.2	2	21	1,000 mm (LS)	
	54	1.5 – 14.2	2	21	1,000 mm (LS)	EI 60 U/C
	≤ 15	1.0 – 14.2	2	11	(CS)	EI 90 U/C
	> 15 < 54	1.0 – 14.2	2	21	(CS)	
Steel	88.9	3.2 – 14.2	2	21	1,000 mm (LS)	EI 90 U/C
	> 54 ≤ 88.9	3.2 – 14.2	2	21	(CS)	EI 90 U/C
	88.9	3.2 – 14.2	2	21	(CS)	EI 120 U/C

7. Assembly instructions for HENSOMASTIK® Mixed Penetration Seal EI 90 / EI 120 in flexible and solid wall with a wall thickness of minimum 100 mm

HENSOMASTIK® Mixed Penetration Seals may be applied by trained and qualified personnel only. The Mixed Penetration Seal system may not be processed at material, substrate, or air temperatures below +5 °C or at air humidities exceeding 80 %. Before installation, the reveals and the rough opening of the structural element must be cleaned and all loose parts removed!

Up to 60 % of **HENSOMASTIK® Mixed Penetration Seals** can be covered with supply lines. Retrofits on **HENSOMASTIK® Mixed Penetration Seals** are possible when 60 % of the area has not yet been covered.

Step 1: Transfer the measurements of the rough opening of the structural element (length × width) to the boards, and cut these to size. These must be used to cut out the individual pieces that must be custom-fitted in all openings between the lines and between these and the reveal.

TIP: A contour gauge (template) can be used to transfer electric cables, pipes, and cable runs to the fire protection panel.

Step 2: The outsides of the cut mineral wool panels are coated with a fire protection coating at least 1 mm thick in the dried state.

TIP: This can be obtained in only the one operation with **HENSOMASTIK® 5 KS viskos** as the most cost-effective solution after the cut pieces have been fitted.

Alternatively, prefabricated or ready-coated mineral fibre boards can be used as the cut pieces.

Step 3: Before installation, the reveal and the cut edges of the mineral fibre boards or the reveal of the carcase opening must be coated with **HENSOMASTIK® 5 KS Farbe, HENSOMASTIK® 5 KS viskos,** or **HENSOMASTIK® 5 KS SP.** Not until afterwards may the cut pieces be installed in the rough opening.

Step 4: Gaps, joints, and gussets are filled completely with **HENSOMASTIK® 5 KS SP.** Gaps, joints, or gussets wider than 10 mm are first stuffed with loose mineral fibre material towards the centre of the mixed penetration seal and then filled with **HENSOMASTIK® 5 KS SP.** Bear in mind that the circumferential gap around pipes may not be wider than 10 mm!

Step 5: Tape off the circumference of the opening **≥ 2 cm** above the rough opening of the structural element. This will allow you to coat the circumferences of the transitions/join between the mineral fibre boards and the wall or the floor at least **≥ 2 cm** beyond the mineral fibre board with at least 1 mm (dry film thickness) of **HENSOMASTIK® 5 KS Farbe** or **HENSOMASTIK® 5 KS viskos.**

For **wall and floor installations,** cables and cable runs must be coated **30 cm** as measured from the wall/sealant with at least **1 mm** (dry film thickness) of **HENSOMASTIK® 5 KS Farbe** or **HENSOMASTIK® 5 KS viskos.**

IMPORTANT! Floor sealant must be protected additionally against access!

Finally, the ready **HENSOMASTIK® Mixed Penetration Seal** is fitted visibly and permanently with a **labelling plate** containing all the details and provided for this purpose. This labelling plate is available from Rudolf Hensel GmbH.

Top coating of the penetration sealing – If required it is possible to overcoat with HENSOTOP SB or HENSOTOP WB Green (50 – 100 µm dry film thickness) in RAL or NCS colour shades. Individual colour shades on request.

NOTE: These assembly instructions are for your consultation. They do not serve in lieu of the details in the underlying European Technical Assessment **ETA 20/1309**. The complete ETA 20/1309 must be printed out and made available at the installation site.

FIRE PROTECTION
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