



ROCKLAP H&V PIPE SECTIONS

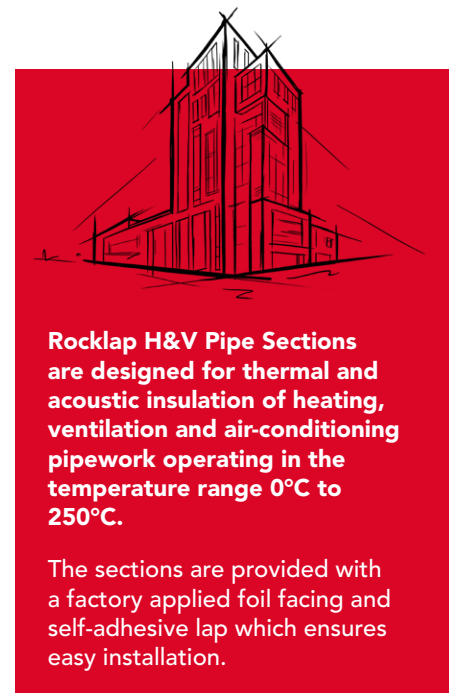
For rapid, efficient pipework insulation

RockLap H&V Sections are pre-formed sections of stone wool insulation. Manufactured pre-slit and provided with a factory applied foil facing complete with integral self-adhesive lap.

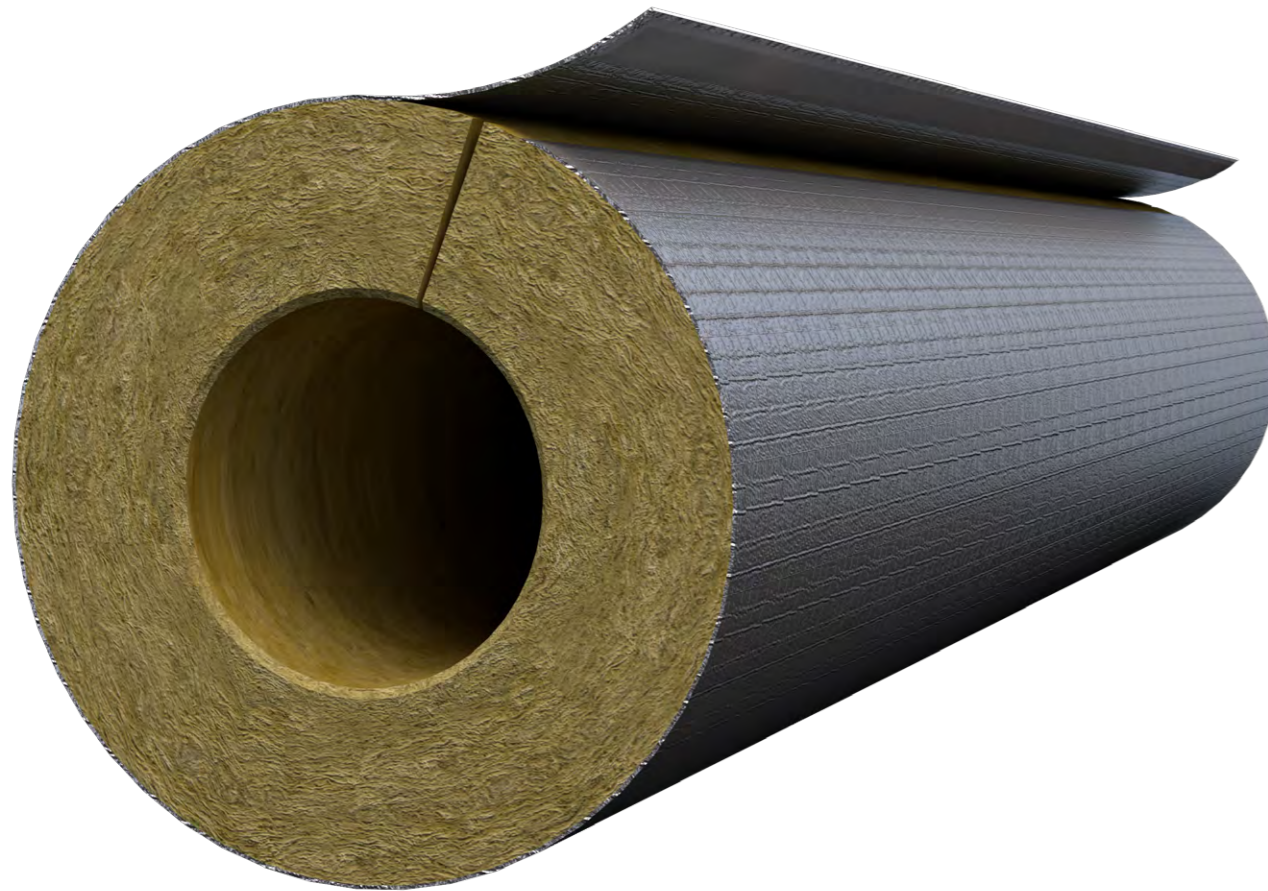
Sizes available: Please see the table on page 11.

- Resilient, high performance barrier provided by one-piece, reinforced foil with integral lap
- Fast and simple installation reduces costs and time on site
- Tape requirement reduced
- Tested to EN 1366-3, for the fire resistance of penetration seals offering up to EI 120*

*Subject to the application



ROCKLAP H&V PIPE SECTIONS



APPLICATIONS

RockLap H&V Pipe Sections are strong lengths of pre-formed insulation with a one piece, factory applied foil facing with integral self-adhesive lap. The integral lap ensures fast and easy installation: just snap the sections onto the pipe, peel off the backing tape and smooth down for a completely sealed joint.

ROCKWOOL H&V Pipe Sections have been successfully tested for providing fire stopping to steel & copper pipe penetrations where they penetrate fire resistant walls and floors.

The H&V pipe sections are suitable for use within fire rated flexible/rigid walls and concrete floors either as sleeving (Locally sustained – L/S) where they penetrate the division or with continuous insulation (Continually sustained – C/S) along the length of the pipework.

This allows for H&V pipe sections used for thermal insulation to pipework to be continued through fire resistant constructions without the need to be locally removed or replaced thus saving time and reducing labour costs.

ROCKLAP H&V PIPE SECTIONS

PERFORMANCE

Thermal performance

The specific heat of ROCKWOOL stone wool is 0.84 kJ/kgK (nom.) at 20°C.

Temperature °C	*Curve 1 (W/mK)	*Curve 2 (W/mK)
10	0.033	0.034
50	0.037	0.039
100	0.044	0.048
150	0.052	0.056

*The thermal conductivity curve used depends upon the size of the pipe section. For further information please refer to the DOP.

Note - Due to the low emissivity of aluminium, heat losses, which depend upon the diameter, thickness and temperature of the pipe to be insulated, are reduced by approx. 9% by using aluminium faced sections compared with painted or PVC faced sections.

Consider a 169 mm O.D. hot water pipe running at 75°C with an ambient temperature of 15°C insulated with 50 mm thick RockLap H&V Pipe Section:

Cladding type	Emissivity (ε)	Outer surface temp (°C)	Heat loss (W/m)
Aluminium	0.05	24.4	27
Cloth	0.90	19.5	29

ROCKLAP H&V PIPE SECTIONS

Table 8 (BS5422:2009)

Minimum thickness of ROCKWOOL RockLap H&V to prevent condensation.
Taken from BS 5422 Table 8, ambient air temperature 25°C, 80% rh, $\epsilon=0.05$

Outside diameter of steel pipe on which insulation has been based (mm)	Temperature of contents (°C)					
	Temperature of contents +10°C		Temperature of contents +5°C		Temperature of contents 0°C	
	Calculated thickness (mm)	Advised thickness (mm)	Calculated thickness (mm)	Advised thickness (mm)	Calculated thickness (mm)	Advised thickness (mm)
17	15.7	20	21.8	25	27.5	30
21	16.9	20	23.1	25	29.4	30
27	18.2	20	25.0	25	31.8	35
33	19.5	20	26.8	30	33.8	35
42	20.9	25	28.9	30	36.4	40
48	21.7	25	30.1	35	37.9	40
60	23.1	25	32.2	35	40.6	45
76	25.7	30	35.7	40	44.9	45
89	26.9	30	37.4	40	47.2	50
102	28.0	30	38.9	40	49.5	50
114	28.9	30	40.2	45	51.2	55
140	30.6	35	42.3	45	54.1	55
169	32.3	35	44.9	45	57.1	60
219	34.6	35	48.4	50	61.2	65
245	35.6	40	50.0	50	63.2	65
273	36.7	40	51.2	55	65.2	70
324	38.3	40	53.5	55	68.5	70
356	39.2	40	54.8	55	70.3	75
406	40.6	45	56.7	60	73.5	75
456	41.4	45	58.5	60	75.0	75
508	42.6	45	60.2	65	77.9	80
558	43.7	45	61.7	65	79.1	80
610	44.7	45	63.1	63	80.9	81

ROCKLAP H&V PIPE SECTIONS

Table 15 (BS5422:2009)

Indicative thickness of insulation for non-domestic heating services to control heat loss – low emissivity outer surfaces ($\epsilon=0.05$).

Outside diameter of steel pipe on which insulation has been based (mm)	Hot face temperature (°C)								
	Thickness of ROCKWOOL RockLab H&V Pipe Section (mm)								
	Heat gain (W/m)	75		Heat gain (W/m)	100		Heat gain (W/m)	125	
Calculated thickness (mm)		Advised thickness (mm)	Calculated thickness (mm)		Advised thickness (mm)	Calculated thickness (mm)		Advised thickness (mm)	
17.2	28	30	8.9	28	30	13.34	29	30	17.92
21.3	32	35	9.28	34	35	13.56	35	35	18.32
26.9	35	35	10.06	43	45	13.83	43	45	18.7
33.7	37	40	11.07	50	50	14.39	54	55	19.02
42.4	39	40	12.3	54	55	15.66	67	70	19.25
48.3	41	45	12.94	55	55	16.67	70	70	20.17
60.3	43	45	14.45	59	60	18.25	75	75	21.96
76.1	45	45	16.35	62	65	20.42	80	80	24.21
88.9	46	50	17.91	64	65	22.09	83	85	25.99
114.3	48	50	20.77	68	70	25.31	89	90	29.32
139.7	49	50	23.71	70	75	28.23	93	95	32.47
168.3	50	50	26.89	73	75	31.61	96	100	36.04
219.1	51	55	32.54	75	75	37.66	100	100	42.16
273	51	55	38.83	77	80	43.72	103	105	48.48

Note 1 - Insulation thicknesses in this table have been calculated according to BS EN ISO 12241:2008 using standardised assumptions: horizontal pipe in still air at 15°C, emissivity of outer surface of insulated system as specified.

Note 2 - Heat loss relates to the specified thickness and temperature.

Note 3 - The thicknesses in this table are applicable to pipes serving commercial solar hot water panels.

ROCKLAP H&V PIPE SECTIONS

Fire performance

RockLap H&V Pipe Sections are rated Euroclass A2L*-s1,d0.

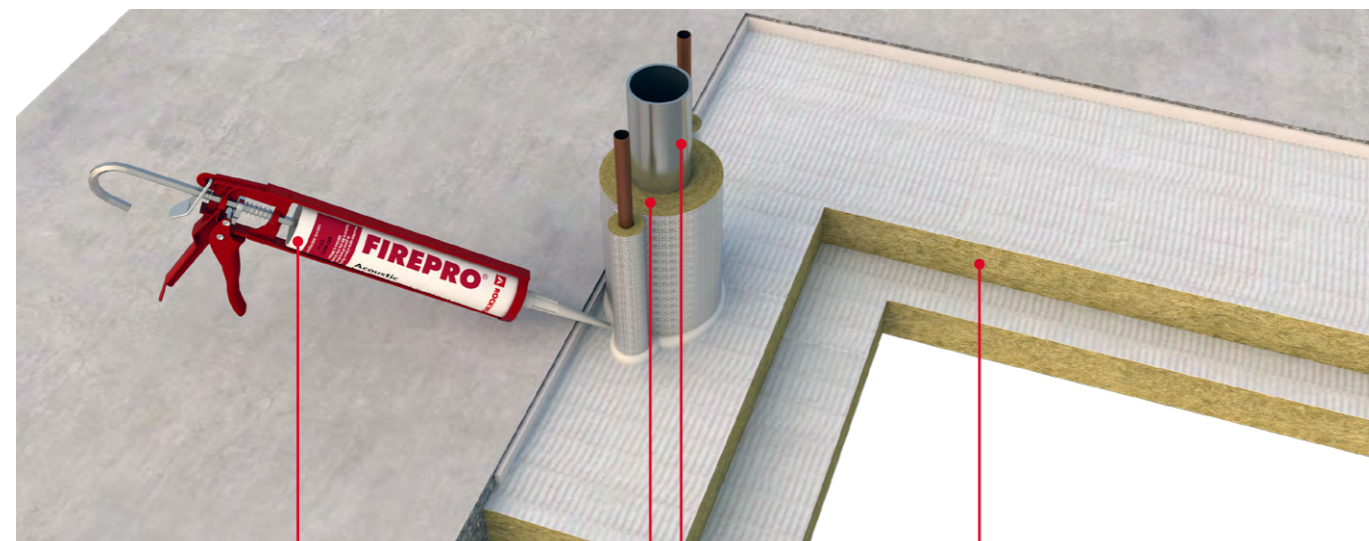
RockLap H&V Pipe Sections have been tested for fire resistance to EN 1366-3, the harmonised European standard for the fire resistance of penetration seals.

RockLap H&V Pipe Sections provide up to 120 minutes** fire resistance integrity and insulation ratings. Use the links below to access further information on fire performance:

[Fire Stopping Standard Details Guide >](#)

*Classifications for linear pipe thermal insulation products are followed by the sub-index 'L' (for example, A2L).

**Subject to the application



Acoustic Intumescent Sealant RockLap H&V Pipe Section Metallic pipes (cluster) Ablative Coated Batt

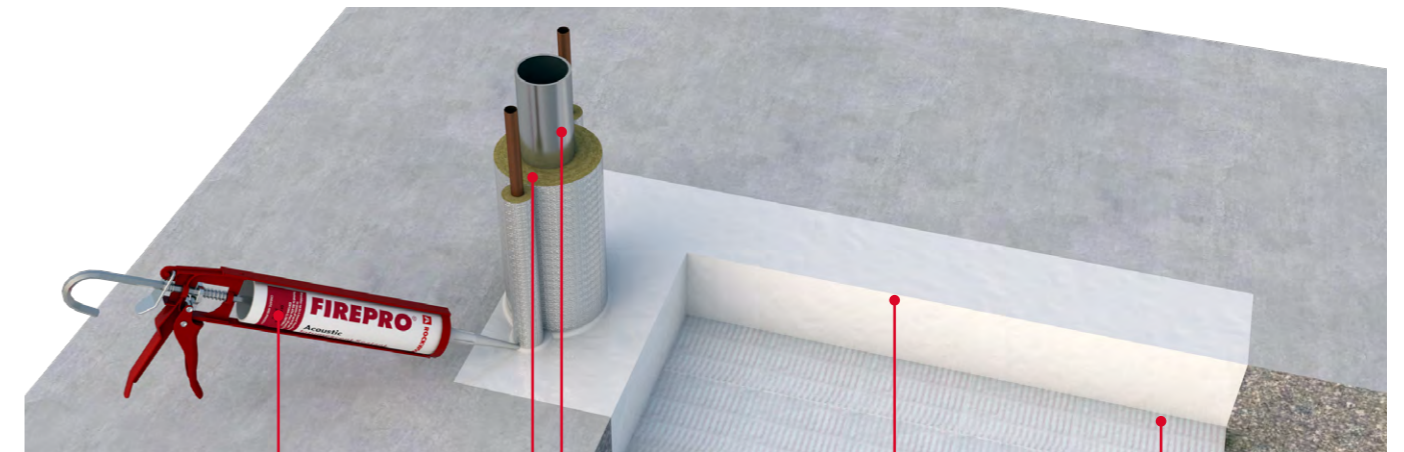
Table 1 - Performance of Insulated Steel & Copper Pipework in 150mm Aerated Concrete Floors

Insulation thickness (mm)	Pipe dia range (mm)	Formation	Substrate	Service separation (mm)	Substrate separation (mm)	Fire resistance (min)			
						Locally sustained (L/S)		Continuously sustained (C/S)	
						Integrity (E)	Insulation (I)	Integrity (E)	Insulation (I)
25mm H&V	42 - 169*	Cluster Single	2 x 50mm Ablative Coated Batt	0	0	240	120	240	120
25mm H&V	169-219**	Single	2 x 50mm Ablative Coated Batt	100	0	240	90	240	90
40mm H&V	42 - 169*	Cluster Single	2 x 50mm Ablative Coated Batt	0	0	180	60	180	120
40mm H&V	169-219**	Single	2 x 50mm Ablative Coated Batt	100	0	180	120	180	120

*Copper pipe sizes covered: 42-108mm / Steel pipe sizes covered: 42-169mm

**169-219mm covered for steel pipes only

ROCKLAP H&V PIPE SECTIONS



Acoustic Intumescent Sealant RockLap H&V Pipe Section Metallic pipes (cluster) High Strength Compound Ablative Coated Batt

Table 2

Insulation thickness (mm)	Pipe dia range (mm)	Formation	Substrate	Service separation (mm)	Substrate separation (mm)	Fire resistance (min)			
						Locally sustained (L/S)		Continuously sustained (C/S)	
						Integrity (E)	Insulation (I)	Integrity (E)	Insulation (I)
25mm H&V	42 - 169	Cluster*	100mm HS Compound & 50mm ACB Shuttering	0	0	180	90	180	120
40mm H&V	42 - 169	Cluster*	100mm HS Compound & 50mm ACB Shuttering	0	0	240	60	240	180

*Copper pipe sizes covered: 42-108mm / Steel pipe sizes covered: 42-169mm

Table 3 - Performance of Steel & Copper Pipework in Flexible Wall (minimum 75mm) - Ablative Coated Batt (ACB)

Insulation thickness (mm)	Pipe dia range (mm)	Formation	Aperture	Service type	Service/substrate separation (mm)	Supporting construction	Classification E/I
> 25mm H&V	40 - 168*	Cluster	1 x 50mm ACB	Steel/Copper	0	75mm flexible wall	60/60

*Copper pipe sizes covered: 40-108mm / Steel pipe sizes covered: 40-168mm

Table 4 - Performance of Steel Pipework in Solid Wall (minimum 100mm) - Ablative Coated Batt (ACB)

Insulation thickness (mm)	Pipe dia range (mm)	Formation	Aperture	Service type	Service/substrate separation (mm)	Supporting construction	Application	Classification E/I
> 40mm H&V	< 610mm	Single	2 x 50mm ACB	Steel	100/0	100mm aerated block	Locally sustained (L/S)	120/600
> 40mm H&V	< 610mm	Single	2 x 50mm ACB	Steel	100/0	100mm aerated block	Continuously Sustained (C/S)	120/120

RockLap H&V Pipe Sections Ancillaries

- FIREPRO® Acoustic Intumescent Sealant, Ablative Coated Batt & Firestop Compound are available from ROCKWOOL stockists
- RockLap Pipe Supports are suitable for use with RockLap H&V pipe sections and are available from all ROCKWOOL stockists
- Suitable aluminium foil tape is available from specialist HVAC stockists



ROCKLAP H&V PIPE SECTIONS

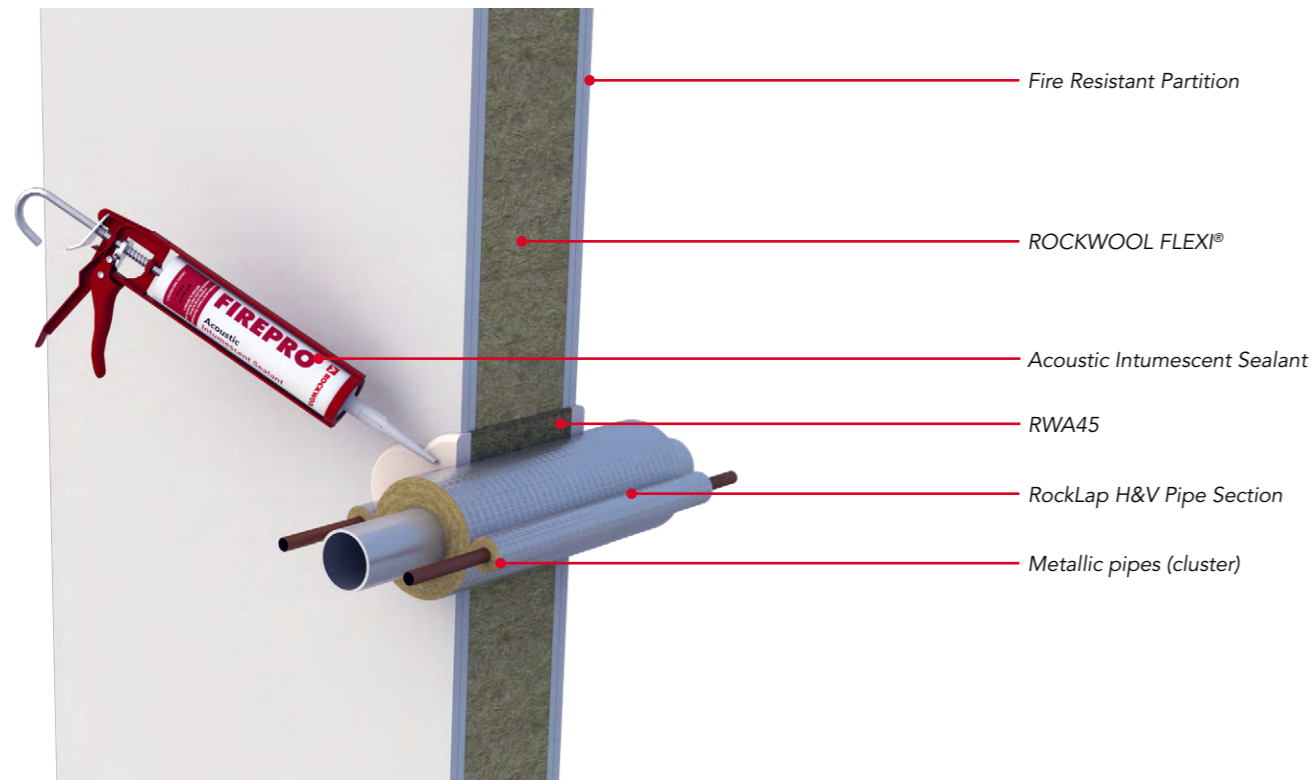


Table 5

Performance of Steel & Copper Pipework in Flexible and Solid Wall - Directly through fire rated wall construction

Insulation thickness (mm)	Pipe dia range (mm)	Formation	Aperture	Service type	Annular gap	Service/substrate separation (mm)	Classification					
							Locally sustained (L/S)			Continuously sustained (C/S)		
							Integrity (E)	Insulation (I)	E/I	Integrity (E)	Insulation (I)	E/I
> 20mm H&V	15	Single	Direct	Copper	<10mm*	0	120	120	120/120	120/120	120	120/120
> 20mm H&V	60	Single	Direct	Steel	<10mm*	0	120	120	120/120	120/120	120	120/120
> 20mm H&V	15	Single	Direct	Copper	<10mm*	0	120	120	120/120	120/120	120	120/120
> 25mm H&V	15	Single	Direct	Copper	11-50mm**	0	120	120	120/120	120	120	120/120
> 25mm H&V	16-108	Single	Direct	Copper	<10mm*	0	120	60	120/120	120	120	120/120
> 25mm H&V	16-108	Single	Direct	Copper	11-50mm**	0	120	90	120/120	120	120	120/120
> 25mm H&V	16-108	Cluster	Direct	Copper	< 50mm**	0	120	60	120/120	120	120	120/120
> 25mm H&V	114	Single	Direct	Steel	<10mm*	0	120	90	120/120	120	120	120/120
> 25mm H&V	114	Single	Direct	Steel	11-50mm**	0	120	90	120/90	120	120	120/120
> 25mm H&V	114-219	Single	Direct	Steel	<10mm*	0	90	90	90/90	90	90	90/90
> 25mm H&V	114-219	Single	Direct	Steel	11-50mm**	0	120	60	120/60	120	90	120/90
> 25mm H&V	15-114	Cluster	Direct	Steel	< 50mm**	0	120	120	120/120	120	120	120/120

* < 10mm = annular space sealed with AIS through full wall thickness

** 11-50mm Annular space filled with RWA45 and finished with 12.5mm AIS

For more information visit rockwool.com/uk

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ROCKLAP H&V PIPE SECTIONS

PRODUCT INFORMATION

Water resistance

RockLap H&V Pipe Sections are water repellent. However, when used or stored in the open, the insulation should be protected with a waterproof covering. When used to insulate cold pipes, the joints should be sealed with foil tape to prevent condensation.

Service temperature

RockLap H&V Pipe Sections are used to insulate pipes operating at temperatures in the range 0 to 250°C. The sections are used to insulate against frost damage. For hot pipes, the limiting temperature of the outer foil face is 80°C to maintain facing bond strength.

Durability

ROCKWOOL stone wool insulation products are highly resilient, durable and dimensionally stable, maintaining their thickness and shape over time. In tests, ROCKWOOL insulation has shown to retain its insulation characteristics and properties for more than 55 years after initial installation.

Biological

ROCKWOOL stone wool is a naturally inert and rot-proof material that does not encourage or support the growth of fungi, moulds or bacteria, or offer sustenance to insects or vermin.

STANDARDS AND APPROVALS

Certificate

ROCKWOOL H&V Pipe Sections are CE marked in accordance with BS EN 14303. For more information please visit www.rockwool.co.uk/DOP

RockLap H&V Pipe Sections conform to BS 3958-4, 'Bonded preformed stone wool pipe sections' and can be used to satisfy BS 5422: 'Method for specifying thermal insulating materials...'

The product has been authorised for use in LUL surface and sub-surface premises when installed in accordance with this data sheet – please refer to the LUL Approved Product Register website www.LU-apr.co.uk for specific details.



For more information visit rockwool.com/uk

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ROCKLAP H&V PIPE SECTIONS

INSTALLATION

RockLap H&V Pipe Sections are supplied with an integral self-adhesive overlap. Place the section around the pipe and seal accordingly (Figure 1).

All joints between RockLap sections must be sealed with aluminum foil tape (Figure 2).

Handling

RockLap H&V Pipe Sections are easy to cut to any shape with a sharp knife. When stored outside, avoid contact with the ground and cover with a securely anchored waterproof sheet.

Maintenance

Once installed RockLap H&V Pipe Sections shouldn't require any maintenance.

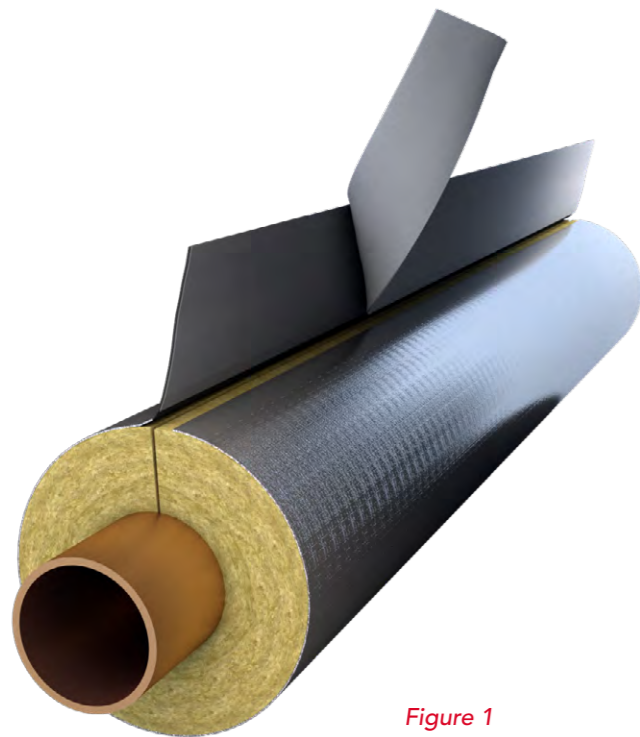


Figure 1



Figure 2

ROCKLAP H&V PIPE SECTIONS

Other guidance

Available standard dimensions and packaging matrix.

To Suit Pipe O.D. / mm	Insulation Thickness / mm										
	20	25	30	35	40	45	50	60	70	80	100
17	42 (1)	30 (1)	25 (1)	20 (1)	16 (1)						
21	36 (1)	30 (1)	20 (1)	13 (1)	13 (1)	9 (1)	9 (1)				
27	30 (1)	25 (1)	20 (1)	12 (1)	12 (1)	9 (1)	9 (1)	6 (2)	4 (2)		
34	25 (1)	20 (1)	16 (1)	12 (1)	9 (1)	8 (1)	8 (1)	5 (2)	4 (2)		
42	20 (1)	16 (1)	12 (1)	9 (1)	9 (1)	6 (1)	6 (1)	4 (2)	4 (2)	■ (2)	■ (2)
48	16 (1)	16 (1)	12 (1)	9 (1)	9 (1)	6 (1)	6 (1)	4 (2)	■ (2)	■ (2)	■ (2)
54	16 (1)	12 (1)	10 (1)	8 (1)	8 (1)	5 (1)	5 (1)	4 (2)	■ (2)	■ (2)	
60	12 (1)	12 (1)	9 (1)	7 (1)	7 (1)	5 (1)	5 (1)	4 (2)	■ (2)	■ (2)	■ (2)
67		9 (2)	9 (2)	6 (2)	6 (2)	4 (2)	4 (2)	■ (2)	■ (2)	■ (2)	■ (2)
76		9 (2)	7 (2)	5 (2)	5 (2)	4 (2)	4 (2)	■ (2)	■ (2)	■ (2)	■ (2)
80		9 (2)	6 (2)	5 (2)	5 (2)	4 (2)	4 (2)	■ (2)	■ (2)	■ (2)	■ (2)
89		6 (2)	6 (2)	4 (2)	4 (2)	4 (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
102		5 (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
108		5 (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
114		4 (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
127		4 (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	
133		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
140		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
150		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)			
154		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	
159		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
169		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
178		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)			
191		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)			
194		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
205		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
219		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
230					■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
245		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
253		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
273		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
279		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
305		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
318		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
324		● (2)	● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
356			● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
406			● (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)	■ (2)
456											
508											
558											
610											

(1 or 2) Applicable DOP Lambda Curve

■ Size is available to order

■ Size currently not available

42 Number indicates the Linear Metres per carton

■ These sections come "split" and are packed as single lengths which are shrink wrapped in polyethylene

● These sections come "unsplit" and are packed as single lengths which are shrink wrapped in polyethylene

Alternative sizes may be available. For further details please contact ROCKWOOL Customer Support

ROCKLAP H&V PIPE SECTIONS

SPECIFICATION CLAUSES

Pipes to be insulated with *mm thick ROCKWOOL RockLap H&V Pipe Sections, having a nominal density not less than 120kg/m³, with a factory applied facing which is a laminate of close mesh reinforcement between two layers of foil including integral lap for fixing. The whole to comply with BS 5422:2009 and BS 5970 water vapour permeance and Building Regulation requirements in relation to thermal and fire. Fixing to be in accordance with manufacturer's instructions, by peeling protective tape from self-adhesive lap and pressing lap smoothly over joint. Where adjacent Sections abut, approved 75 mm wide aluminium tape to be used to maintain integrity of the vapour barrier.

For external applications please see HVAC Specification Detail Guide for external finishes.

**insert required thickness*

DISCLAIMERS

This product should only be utilised for applications as outlined in the relevant ROCKWOOL product datasheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines. For further information please visit www.rockwool.com/uk or contact our Technical Solutions Team on 01656 868490.

SUPPORTING INFORMATION

For further information relating to any aspect of the FIREPRO range, please refer to the applicable ROCKWOOL standard details at www.rockwool.com/uk or contact the ROCKWOOL technical solution team on 01656 868490 or technical.solutions@rockwool.com.

SUSTAINABILITY

As an environmentally conscious company, ROCKWOOL promotes the sustainable production and use of insulation and is committed to a continuous process of environmental improvement.

All ROCKWOOL products provide outstanding thermal protection as well as four added benefits:



HEALTH & SAFETY

The safety of ROCKWOOL stone wool is confirmed by current UK and Republic of Ireland health & safety regulations and EU directive 97/69/EC: ROCKWOOL fibres are not classified as a possible human carcinogen.

A Material Safety Data Sheet is available and can be downloaded from www.rockwool.com/uk to assist in the preparation of risk assessments, as required by the Control of Substances Hazardous to Health Regulations (COSHH).

ENVIRONMENT

Made from a renewable and plentiful naturally occurring resource, ROCKWOOL insulation saves fuel costs and energy in use and relies on trapped air for its thermal properties.

ROCKWOOL insulation does not contain (and has never contained) gases that have ozone depletion potential (ODP) or global warming potential (GWP).

ROCKWOOL is approximately 97% recyclable. For waste ROCKWOOL material that may be generated during installation or at end of life, we are happy to discuss the individual requirements of contractors and users considering returning these materials to our factory for recycling.