Technical Insulation
Great Britain & Ireland

K-Roc® Pipe Insulation Installation Guide

Mineral Fibre Insulation for HVAC Applications



Kingspan®

Installation Guide

Introduction

Kingspan K-Roc® Pipe Insulation comprises of mineral wool with a density of 70 kg/m³. It is supplied with a reinforced aluminum foil with a self-adhesive tab.

K-Roc® Pipe Insulation sections are manufactured with two cuts - one assembly cut and a second half cut inside the section to create a hinge. Both allow for easy opening of the pipe section and installation onto pipework.



Handling and Storage

K-Roc® Pipe Insulation sections should be stored in packaging in dry rooms not exposed to atmospheric precipitation, moisture or dust.

Tools Required

- Sharp insulation knife or insulation saw.
- Tape measure and ruler.
- Suitable aluminum tape.
- A cutting template can be found on Kingspan K-Roc® Pipe Insulation boxes.

Health & Safety

- Cover exposed skin when working in unventilated areas and wear a disposable mask.
- Ventilate working area if possible.
- Waste should be disposed of according to local regulations.
- Rinse hands in cold water before washing.
- Clean area using vacuum equipment.
- Wear goggles when working overhead.

The mechanical effect of fibres in contact with skin may cause temporary itching.

Please contact **techline.hvac@kingspan.com** for further information.

Instructions

1. Before installing K-Roc® Pipe Insulation ensure that the pipework is clean, free of dust, water and grease. Uncleaned pipework can cause contamination of glue to the surface of the overlap glue, often leading to the enlargement of the pipe section diameter, thus preventing closure of the pipe section.
2. The pipe section should be opened, the glue tab tilted and placed onto the pipework.
3. The adhesive protective strip should then be removed (this should not be done before applying any coating on the pipeline, as it may cause contamination to the adhesive surface), and the pipe section pressed tightly together along the slit in order to glue it together.
4. All longitudinal and transverse connections of the pipe section should be tightened and adhere closely to each other to prevent gaping that could cause thermal bridges.
5. On pipe installations located horizontally, placing the pipe section in the upper position should be avoided to prevent the sun's rays and the heat from the pipework reacting with the adhesive. This might speed up the aging process of the adhesive and can cause unsealing of the the coating and heat loss. To prevent this happening, folding should be located in the lower part of the pipe section.
6. Secure all transverse folding using aluminum tape

   Recommended method:

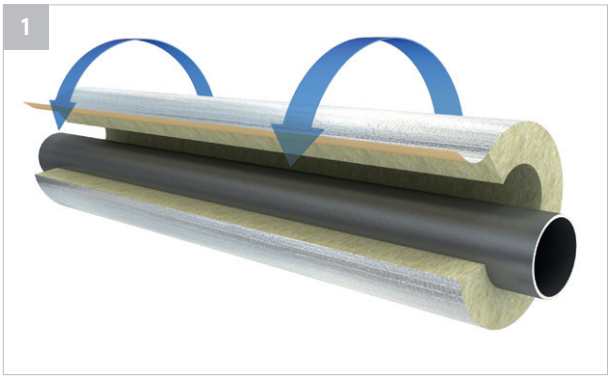
   - Place glued circumferential areas around the pipe section with aluminum tape,
   - Glue the two ends of the tape (longer and shorter) with glue to each other so that the longer one protrudes beyond the other,
   - Glue them to the pipe section.
7. The aluminum tape should be smoothed with a spatula to eliminate the air between the tape and the surface of aluminum foil.

Installation Guide

Pipework Insulation

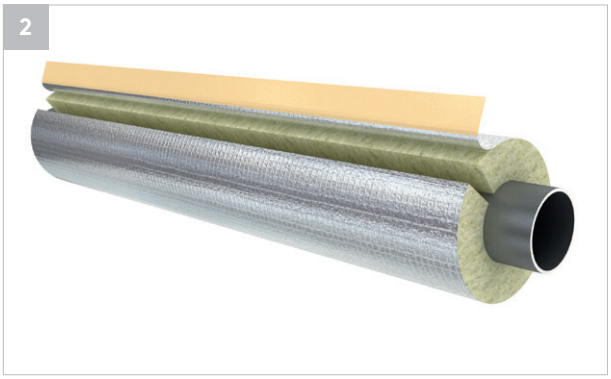
a) Straight Pipework

1



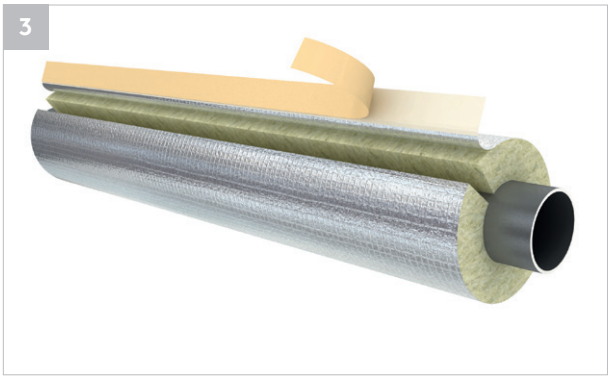
K-Roc® Pipe Insulation sections should be positioned onto the pipe so that the longitudinal joints are facing sideways.

2



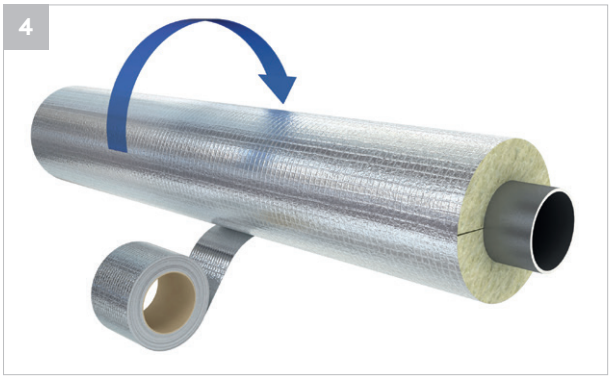
Pull the edge of the self-adhesive strip away from the pipe section.

3



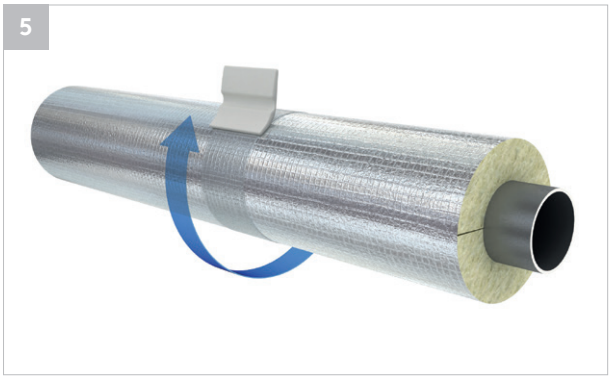
Remove the protective tape from the self-adhesive strip.

4



Self-adhesive aluminium foil vapour barrier tape shall be applied centrally at all circumferential butt joints of adjoining K-Roc® Pipe Insulation sections to provide a secure and vapour tight seal.

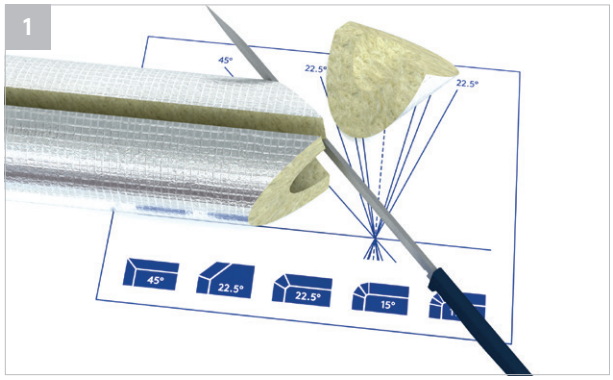
5



Circumferential seals shall be thoroughly yet gently rubbed with a flexible squeegee to ensure a secure, vapour tight and long-lasting adhesion between the self-adhesive aluminium foil vapour barrier tape and the aluminum foil vapour barrier jacket.

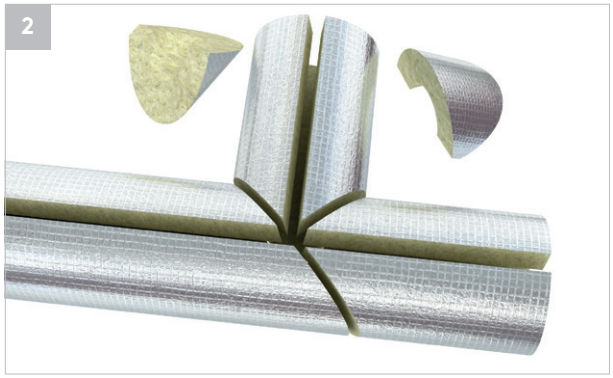
b) Tees

1



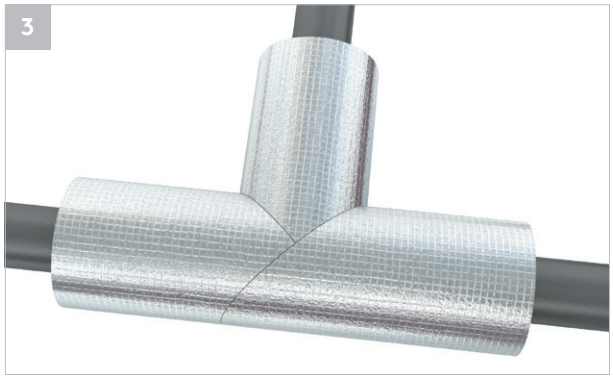
The branch of the tee shall be made by two clean vertical 45° angled cuts.

2



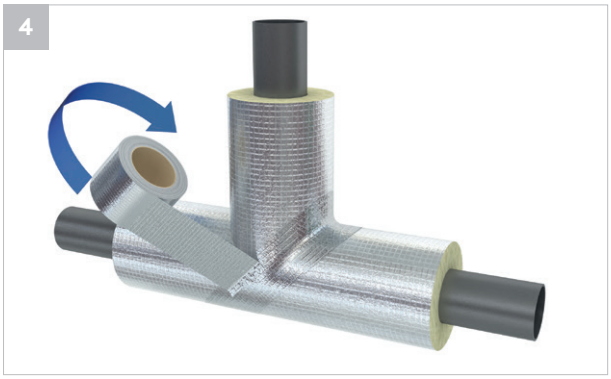
The adjoining pipe insulation should be cut to suit the angles of the tee branch.

3



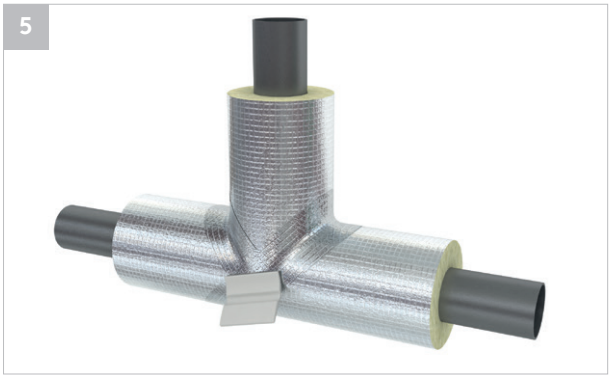
The branch of the tee should fit tightly with the cut pipe sections.

4



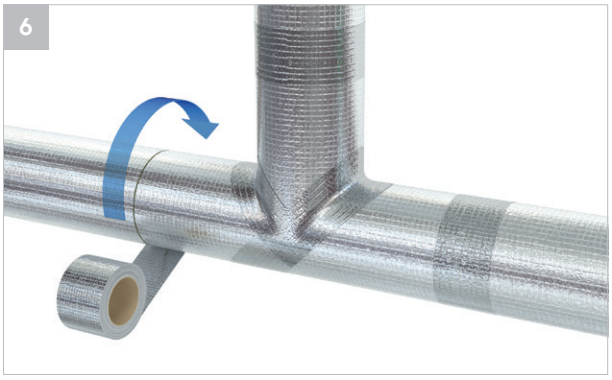
The joints of both parts shall be vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape.

5



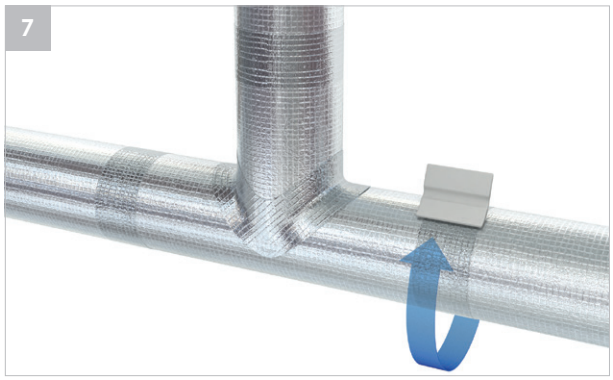
All seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

6



When the adjoining K-Roc® Pipe Insulation sections are fitted and installed, the circumferential joints shall be vapour sealed with appropriate self-adhesive aluminium foil vapour barrier tape.

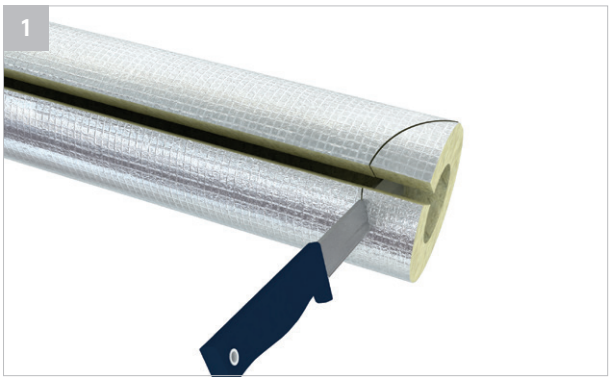
7



All circumferential seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

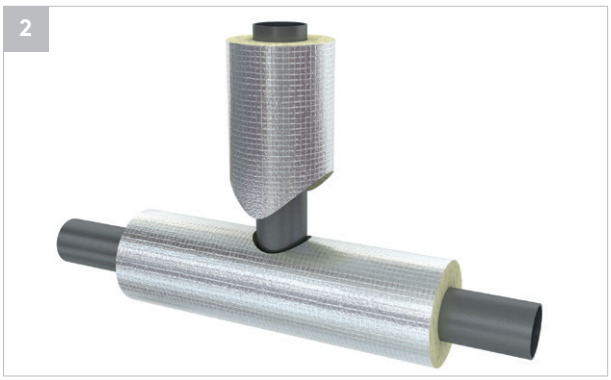
c) Unequal Tees

1



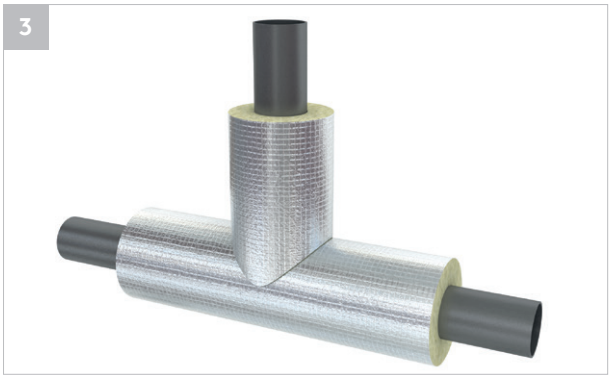
A curved cut is made identical to the outer surface of the insulation on the main pipe.

2



The branch part of the tee shall be slid into position.

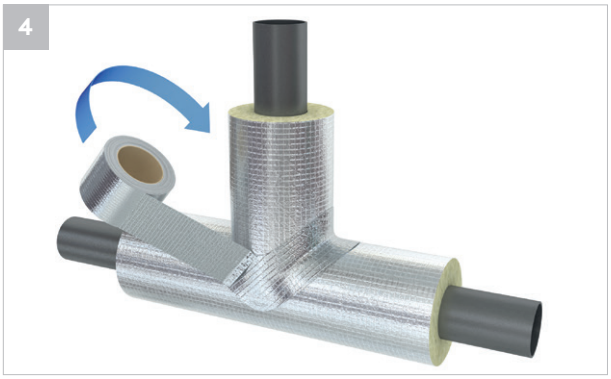
3



Ensure a close fit of the coinciding joints.

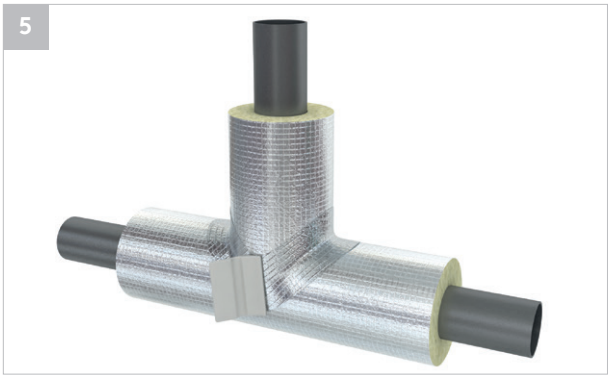
Installation Guide

4



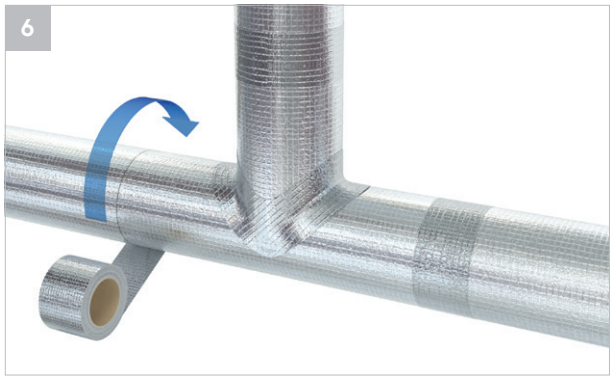
The coinciding joint shall be vapour sealed with an appropriate self-adhesive vapour barrier tape. Enough pressure shall be used to ensure full contact between the insulation parts.

5



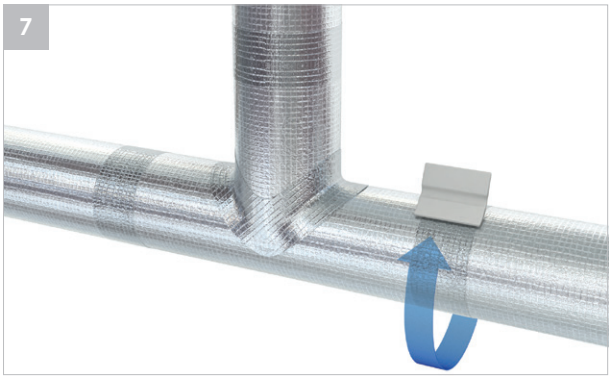
All seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

6



When the adjoining K-Roc® Pipe Insulation sections are fitted and installed, the circumferential joints shall be vapour sealed with appropriate self-adhesive aluminium foil vapour barrier tape.

7

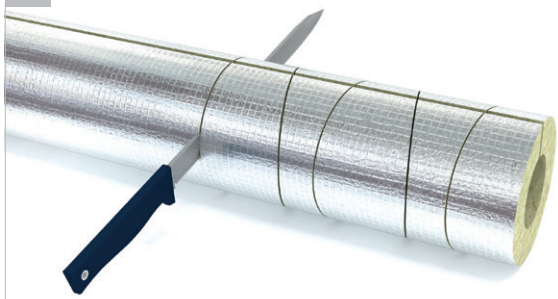


All circumferential seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

d) Bends / Elbows

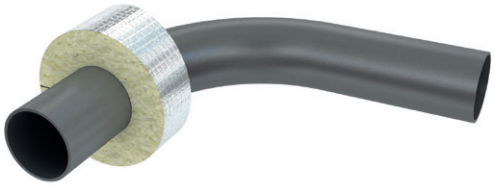
i) Mitred Segments

1



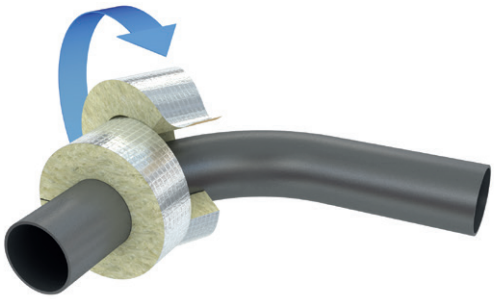
A K-Roc® Pipe Insulation section shall be cut into mitred segments. The width of the mitres shall be determined in order to ensure a good contact with the pipe surface.

2



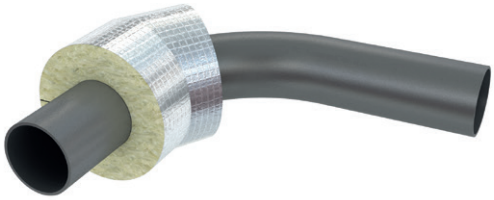
The longitudinal joint of each mitre shall individually be vapour sealed using the self-adhesive lap.

3



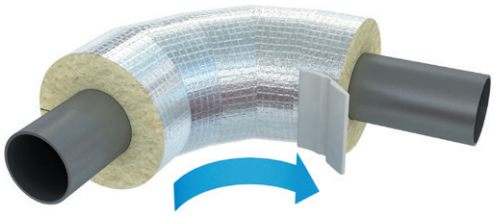
When positioning the next tapered insulation element, care shall be taken that a proper fit is made and no gaps arise in the joints.

4



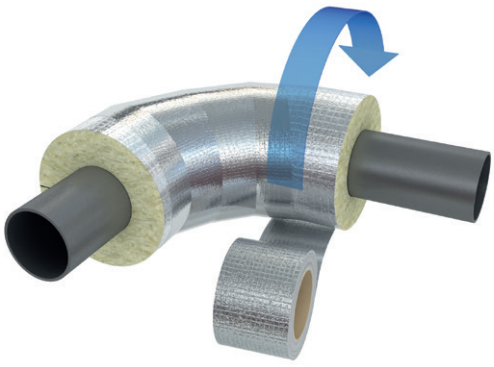
The procedure shall be repeated until the full angle of the elbow is achieved and all longitudinal joints have been sealed with the self-adhesive lap.

5



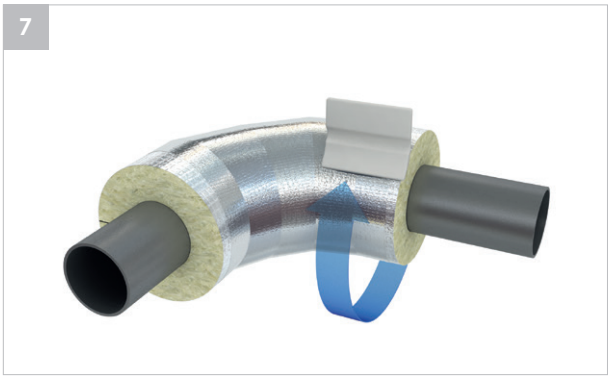
All seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion.

6



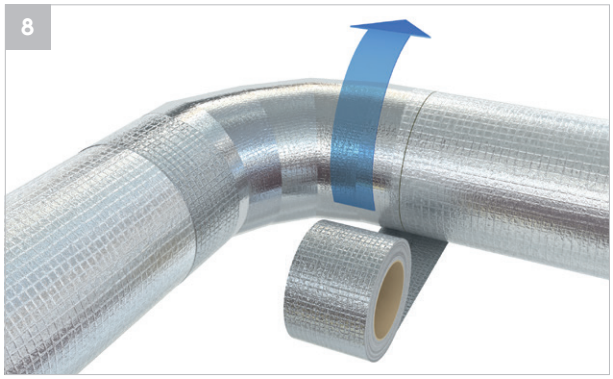
All circumferential joints shall be vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape. Enough pressure shall be used on the mitred parts to properly close the circumferential joints.

7



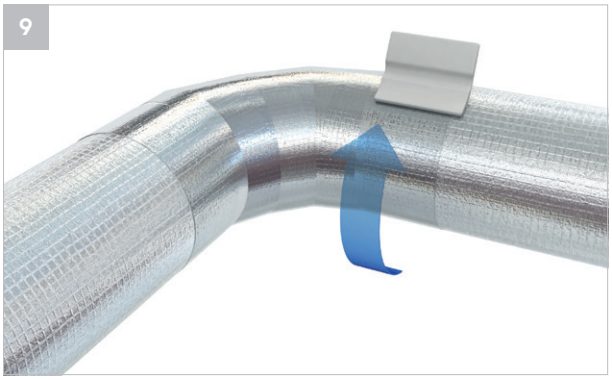
All seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

8



When the adjoining K-Roc® Pipe Insulation sections are fitted and installed, the circumferential joints shall be vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape.

9

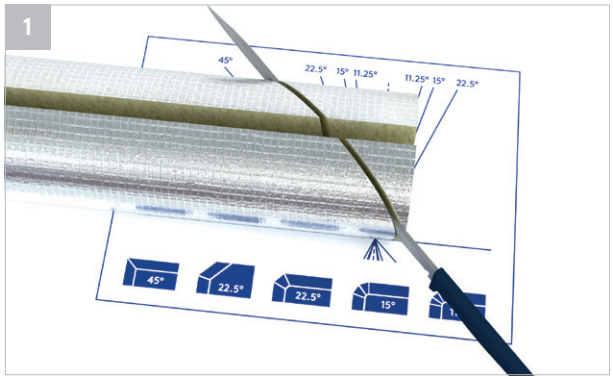


The connecting circumferential seal shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

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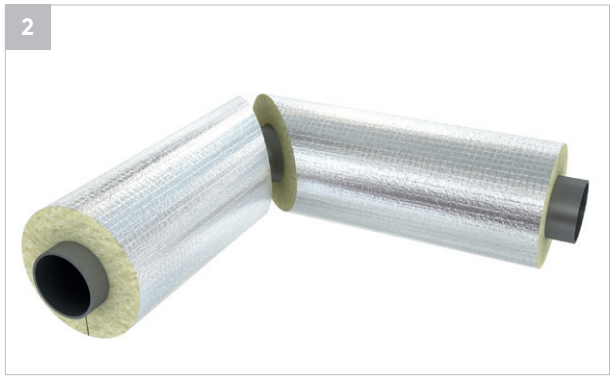
ii) Mitred

1



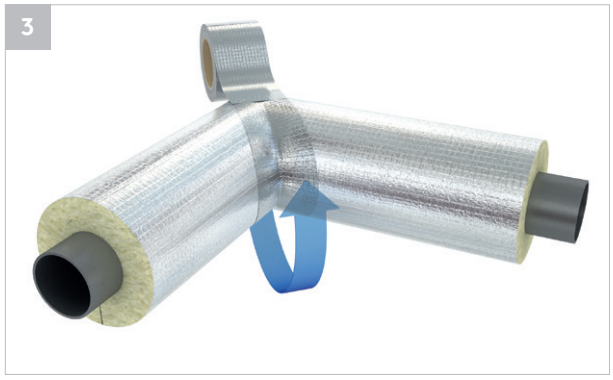
A K-Roc® Pipe Insulation section shall be cut to the desired angle using the template guidance on Kingspan K-Roc® Pipe Insulation box packaging.

2



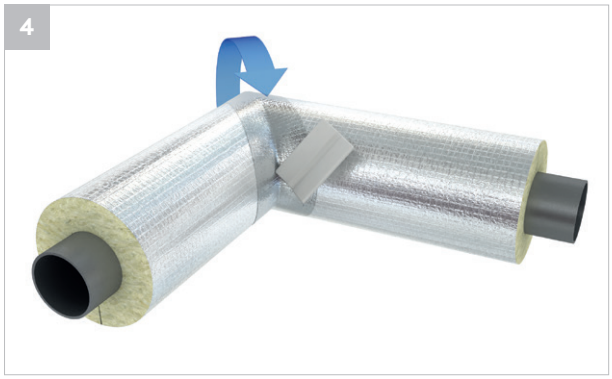
Fit the cut sections onto the pipe. Care shall be taken that a proper fit is made and no gaps arise in the joints.

3



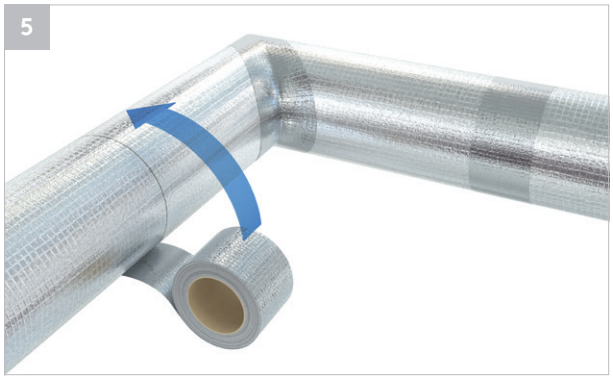
The circumferential joint shall be vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape. Enough pressure shall be used on the mitred part to properly close the circumferential joints.

4



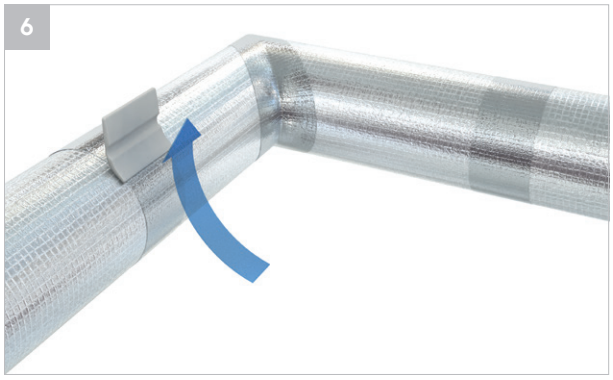
All seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

5



When the adjoining K-Roc® Pipe Insulation sections are fitted and installed, the circumferential joints shall be vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape.

6



The connecting circumferential seal shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

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