



ROCKWOOL

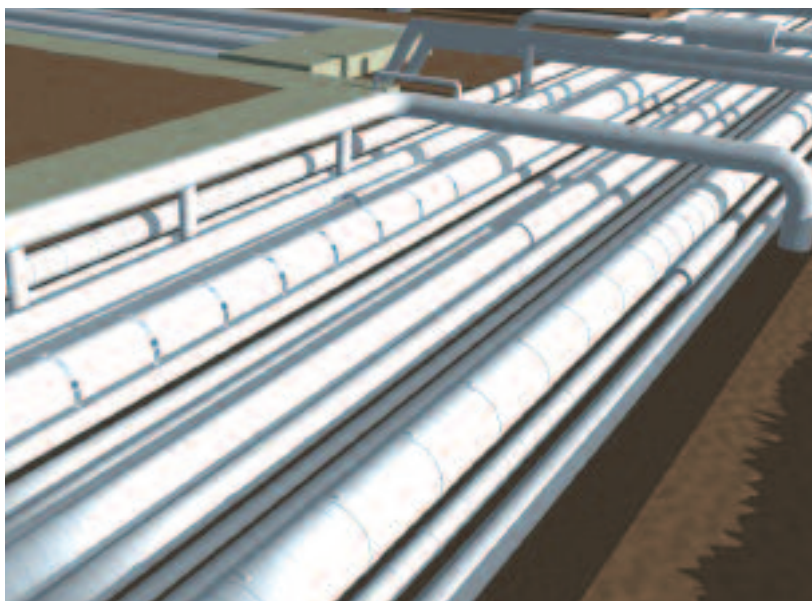
Process Pipe Sections

For the thermal insulation of industrial pipework

Rockwool Process Pipe Sections are strong, non-combustible, pre-formed insulation units for steam and process pipework operating at temperatures up to 700°C. They provide outstanding performance for thermal insulation and sound attenuation.

The sections are normally hinged for snap-on assembly and are particularly suitable for the insulation of steel pipework in chemical plants, petrochemical plants and power stations.

Process Pipe Sections are available in a number of insulation thicknesses for a wide range of pipe outside diameters. The complete range is given in the table overleaf.



Critical industrial process using Rockwool Process Pipe Sections with a weather protection layer

Advantages

- Excellent thermal and acoustic insulation
- Non-combustible
- Water repellent to BP standard 172
- Chemically inert
- Suitable for high temperature use
- Easy to handle and install

Standards and approvals

Rockwool Process Pipe Sections conform to BS 3958-4, 'Bonded preformed mineral wool pipe sections', and can be used to satisfy BS 5422. Method for specifying 'Thermal insulating materials'.
Industrial usage

Rockwool Process Pipe Sections are specially manufactured to meet the specification requirements of large industrial users. The non-combustible high density (140 kg/m³), high limiting temperature (700°C) combination provided by the sections ensures that they are ideally suited for use on high pressure steam mains, turbine pipework, boilers pipework, steam heaters, turbine pumps, super heater stations, control valves, etc.

Performance

Fire

Rockwool Process Pipe Sections are non-combustible. Rockwool Fire Duct Section is used to provide fire protection to circular ducts, Fire Tube to pipes and CHS, and H1100 Section to HC-rated plant. Guidance should be sought from Rockwool regarding such applications.

Water resistance

Rockwool Process Pipe Sections are highly water repellent. Process Pipe Sections meet the requirement for water repellency to be maintained subsequent to heating at elevated temperatures, specified by BP Engineering Standard 172. When used in the open, Rockwool Process Pipe Sections should be protected with a waterproof covering.

Chemical

Rockwool material is chemically inert. An aqueous extract of the Sections is neutral (pH7) or slightly alkaline.

Durability

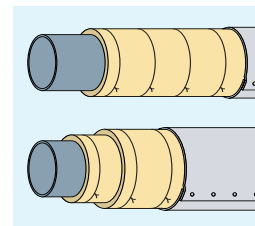
Rockwool Process Pipe Sections have been proven in service for over 50 years in all types of exposure. They will give effective protection for the lifetime of the pipes that they insulate.

Biological

Rockwool Process Pipe Sections offer no sustenance to vermin and do not encourage the growth of fungi, moulds or bacteria.

Density

The nominal density is not less than 140 kg/m³.



Single-layer and double-layer insulation

Thermal conductivity

Mean section temperature (°C)	λ value (W/mK)
50	0.037
100	0.044
150	0.051
200	0.060
250	0.070
300	0.081
350	0.093
400	0.106

Service temperatures

Rockwool Process Pipe Sections are used to insulate industrial pipework operating at temperatures in the range 0 to 700°C. At low temperatures the sections are used to protect against frost damage.

At temperatures above 230°C, there will be a partial loss of binder close to the hot surface but this is normal and will not affect the efficiency of the insulation.

Acoustics

For environmental reasons it is sometimes desirable to improve the acoustic insulation of pipes, especially those pipes in which gases, fluids or particle solids are transported at high velocities. The use of Pipe Sections can considerably reduce noise emission from such sources. For higher standards of acoustic insulation refer to Rockwool Techwrap2 and Techtube data sheet. Further information on acoustics is available on request.

Compatibility

Rockwool is compatible with most materials with which it is likely to come into contact in normal building and industrial applications.

Precautions should be taken when insulating austenitic stainless steel, regardless of insulation type. Contact Rockwool for further details.

Environment

Rockwool insulation products are, and always have been, free from gases that are harmful to the environment, such as CFCs, HCFCs, HFCs, pentane or any gases that have Ozone Depletion Potential (ODP) or Global Warming Potential (GWP).

Work on site

Fixing

The method of fixing depends on the type of application and whether single or double layer Pipe Sections are used. Single layer Pipe Sections are generally secured with steel or aluminium wires at approximately 200 mm centres. The Sections may then be clad with mild steel, aluminium sheet, non-metallic weather protection etc.

Once correctly installed, Rockwool Process Pipe Sections should need no maintenance.

Handling and storage

Rockwool Process Pipe Sections are light and easily cut to shape with a sharp knife.

For long-term protection they should be stored indoors or under a waterproof covering.

Sizes available: steel pipes

Nominal pipe OD (mm)	Nominal insulation thickness (mm)								
	25	30	40	50	60	70	80	90	100
17	•	•	•	•	•				
21	•	•	•	•	•				
27	•	•	•	•	•				
34	•	•	•	•	•	•	•		
42	•	•	•	•	•	•	•	•	•
48	•	•	•	•	•	•	•	•	•
54	•	•	•	•	•	•	•	•	•
60	•	•	•	•	•	•	•	•	•
67	•	•	•	•	•	•	•	•	•
76	•	•	•	•	•	•	•	•	•
80	•	•	•	•	•	•	•	•	•
89	•	•	•	•	•	•	•	•	•
102	•	•	•	•	•	•	•	•	•
108	•	•	•	•	•	•	•	•	•
114	•	•	•	•	•	•	•	•	•
127	•	•	•	•	•	•	•	•	•
140	•	•	•	•	•	•	•	•	•
159	•	•	•	•	•	•	•	•	•
169	•	•	•	•	•	•	•	•	•
194	•	•	•	•	•	•	•	•	•
205	•	•	•	•	•	•	•	•	•
219	•	•	•	•	•	•	•	•	•
230	•	•	•	•	•	•	•	•	•
253	•	•	•	•	•	•	•	•	•
273	•	•	•	•	•	•	•	•	•
324	•	•	•	•	•	•	•	•	•
356	•	•	•	•	•	•	•	•	•

Packaging for different sizes of Pipe Section:

- 1 m lengths packed in cartons 1020 × 400 × 400 mm (number of pieces per pack dependent on size of section)
- in 1 × 1 m lengths, shrink wrapped in polyethylene film
- in 1 × 1 m lengths (unsplit), shrink wrapped in polyethylene film

Other sizes of Rockwool Process Pipe Sections may be available to special order.

Health and safety

Current HSE 'CHIP' Regulations and EU directive 97/69/EC confirm the safety of Rockwool mineral wool; Rockwool fibres are not classified as a possible human carcinogen.

The maximum exposure limit for mineral wool is 5mg/m³, 8 hour time-weighted average.

A Material Safety Data Sheet is available from the Rockwool Marketing Services Department to assist in the preparation of risk assessments, as required by the Control of Substances Hazardous to Health Regulations (COSHH).



Technical Information

For further details visit our website at www.rockwool.co.uk or phone the Technical Hotline on 0871 222 1780

Rockwool Limited reserves the right to alter or amend the specification of products without notice as our policy is one of constant improvement.

The information contained in this data sheet is believed to be correct at the date of publication. Whilst Rockwool will endeavour to keep its publications up to date, readers will appreciate that between publications there may be pertinent changes in the law, or other developments affecting the accuracy of the information contained in this data sheet.

The above applications do not necessarily represent an exhaustive list of applications for Process Pipe Sections. Rockwool Limited does not accept responsibility for the consequences of using Process Pipe Sections in applications different from those described above. Expert advice should be sought where such different applications are contemplated, or where the extent of any listed application is in doubt.

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