



ROCKWOOL®

Lamella Mat

Lamella Mat is particularly suitable for the insulation of heating and ventilation pipework and ductwork and as an overlay to upgrade existing insulation.



Lamella Mat

ROCKWOOL Lamella Mat is formed from strips of ROCKWOOL stone wool bonded on edge to a flexible outer facing. The method of construction provides a strong and resilient mat which will resist flattening at bends and corners. Lamella Mat is particularly suitable for the insulation of heating and ventilation pipework and ductwork and as an overlay to upgrade existing insulation. It is recommended for service at temperatures up to 250°C.

Advantages

- Compression resistant
- Maintains thickness on bends
- Flexible
- Excellent thermal and acoustic insulation
- Easy to handle

Standards and approvals

ROCKWOOL Lamella Mats are CE marked in accordance with BS EN 14303.

The slabs from which Lamella Mat is cut satisfy the requirements of BS 3958: Part 5, 'Bonded stone wool slabs'. Lamella Mat can be used to satisfy BS5422: 'Method for specifying thermal insulating materials.....'.

Description

ROCKWOOL Lamella Mat is formed from strips of ROCKWOOL stone wool bonded on edge to a flexible outer facing.

Dimensions

Dimensions: width 1000 mm

Nominal Thickness (mm)	Length (metres)
20	10.0
30	8.0
40	6.0
50	5.0
60	4.0
70	3.0
80	3.0
100	2.5

Performance

Fire

The product achieves an A2, s1-d0 classification in accordance with BS EN 13501-1. It is deemed as "Limited Combustible" by Building Regulations in England, Wales and Ireland. Under the Scottish Building Regulations it is deemed "Non -Combustible".

Thermal conductivity

Mean temperature (°C)	Thermal conductivity (W/mK)
10	0.040
50	0.047
100	0.059
150	0.077

Service and Limiting Temperatures

ROCKWOOL Lamella Mat can be used for service temperatures of up to 230°C. The limiting outer foil face temperature is 80°C to maintain facing bond strength.

Acoustics

For environmental reasons it is sometimes desirable to improve the acoustic insulation on pipes and ducts, especially those pipes and ducts in which gases, fluids or particle solids are transported at high velocities. The use of Lamella Mat can considerably improve the level of environmental sound. For the highest standards of acoustic attenuation to pipes, ducts and enclosures, ROCKWOOL Techwrap2 and Techtube can be used. Full details are given in the Techwrap2 and Techtube data sheet.

pH Neutrality

ROCKWOOL insulation is chemically compatible with all types of pipes, equipment and fittings. (Guidance is given in BS 5970 regarding the treatment of austenitic stainless steel pipework and fittings). Stone wool insulation is chemically inert. A typical aqueous extract of ROCKWOOL insulation is neutral or slightly alkaline (pH 7 to 9.5).

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Applications

Because the lamella strips are bonded on edge to a flexible outer facing, the insulation mattress is able to maintain its original thickness when fitted to square ducting and tight corners. This increases the contact with the insulated surface and thus the efficiency of the system (See figure 1).

Calculation of length

The calculation to determine the length of Lamella Mat required to insulate the pipe or duct is made using the formula shown in figure 2.

Typical specifications

1. Lamella Mat to be secured to heating pipe with lacing wire tied at 200 mm centres. Joints to be securely taped with 75 mm wide self adhesive foil tape.
2. Lamella Mat to be securely fixed to duct with self adhesive 'stick pins' applied in accordance with manufacturer's instructions. The maximum surface temperature of the ductwork should not exceed the recommended maximum service temperature of the self-adhesive stick pins.

Where pins protrude through facings, the pins are to be cropped flush with the facing washers and covered with 75 mm foil tape.

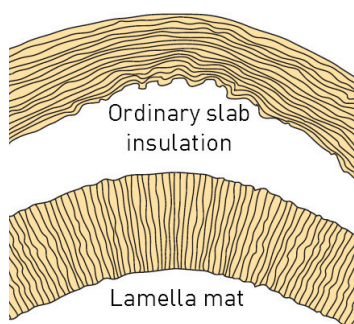


Figure 1

The construction of Lamella Mat maintains thickness on bends

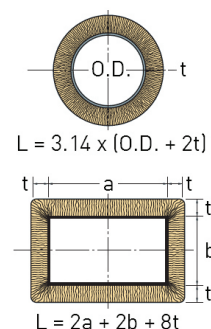


Figure 2

Calculation of length of Lamella Mat

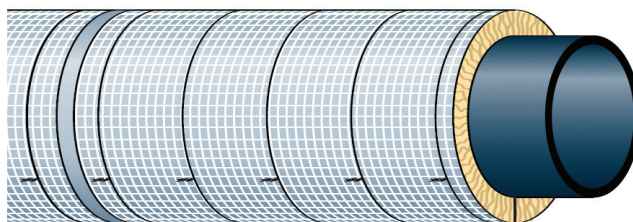


Figure 3

Lamella Mat wired onto a heating pipe

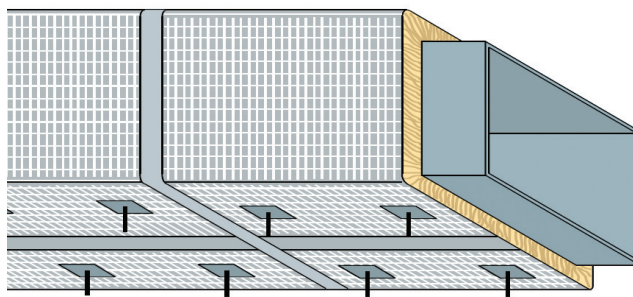


Figure 4

Lamella Mat fixed with pins and washers to rectangular ducting

Lamella Mat

ROCKWOOL properties

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:

- **Fire resistance**
- **Acoustic comfort**
- **Sustainable materials**
- **Durability**

Health and 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.co.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.

Interested?

For further details visit our website at www.rockwool.co.uk or phone ROCKWOOL Technical Solutions Team on 01656 862621.

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Declaration of Performance:
<http://www.rockwool.co.uk/dop>

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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 ROCKWOOL Lamella Mat.

ROCKWOOL Limited does not accept responsibility for the consequences of using ROCKWOOL Lamella Mat in applications different from those described within this data sheet. Expert advice should be sought where such different applications are contemplated, or where the extent of any listed application is in doubt.