

DUODUCT SLAB

Thermal insulation for rectangular and square external ductwork

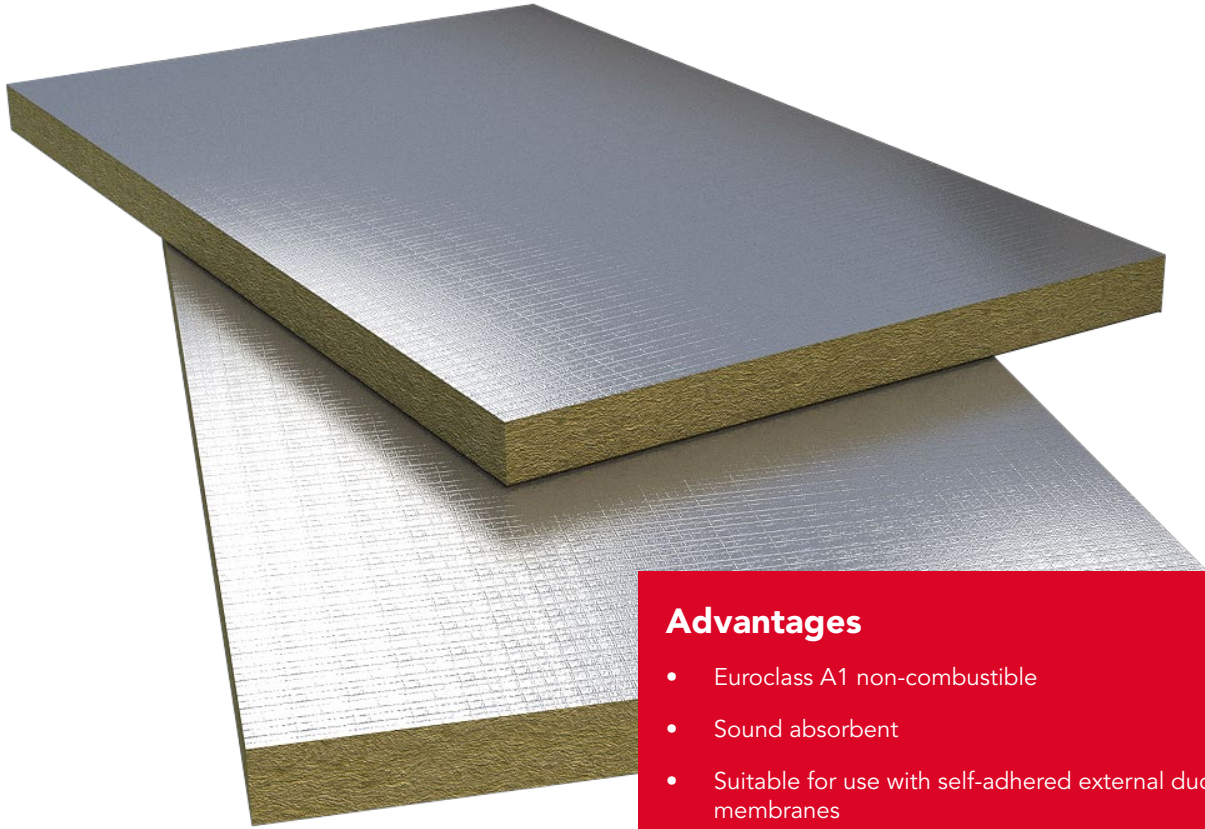


An aerial photograph of a building's rooftop HVAC system. The image shows various ductwork, pipes, and mechanical units. A large white rectangular text box is overlaid on the center of the image, containing text in red and black. The background consists of grey concrete tiles and metal structures.

DUODUCT SLAB

ROCKWOOL DuoDuct is a non-combustible stone wool slab which provides thermal insulation to external ducts carrying warm air, chilled air or dual purpose duct systems.

The insulation is designed for use with rectangular or square external ducts to withstand service temperatures of up to 230°C.



Advantages

- Euroclass A1 non-combustible
- Sound absorbent
- Suitable for use with self-adhered external duct membranes
- Dual Density technology provides impact resistance
- Easy to cut and quick to install

Description

DuoDuct is a non-combustible, Dual-Density stone wool slab with an aluminium foil facing bonded to the outer surface. The robust outer layer provides a suitable surface for the application of insulation cladding systems.

Applications

DuoDuct has been designed for use with rectangular and square external duct work carrying warm air, chilled air or dual purpose duct systems. DuoDuct is recommended for ductwork with service temperatures up to 230°C.

DuoDuct is also suitable for use within plant rooms, low level plant work applications and areas where there is an increased risk of impact damage.

Circular Ductwork

In addition to DuoDuct Slab for rectangular or square external ductwork, ROCKWOOL offer a range of products that are suitable for use on circular external ductwork and this includes:

- RockLap H&V Pipe Sections which are suitable for outside diameters ranging from 17-406mm
- Pipe Section Mat which is suitable for larger circular ductwork ≥ 406 mm

For further information on suitable external finishes for both RockLap and Pipe Section Mat please refer to the HVAC Specification Guide and the relevant datasheets which are available at www.rockwool.co.uk.

Performance

Standards and approvals

DuoDuct has been CE marked in accordance with BS EN 14303. To download a copy of the Declaration of Performance please visit www.rockwool.com/dop.

DuoDuct can be used to satisfy the requirements of BS 5422 'Method for specifying thermal insulating materials'.

Fire

ROCKWOOL DuoDuct achieves a Reaction to Fire classification of A1 as defined in BS EN 13501: 1

Thermal

The thermal conductivity at 10°C is 0.036 W/mK in accordance with EN 12667: 2001
The maximum service temperature is 230°C in accordance with EN 14706: 2012

Acoustics

It is sometimes desirable to improve the acoustic insulation on duct systems, especially those in which gases, fluids or particle solids are transported at high velocities. The use of ROCKWOOL DuoDuct can considerably improve the level of environmental sound.

Product information

Property	Description
Length	2000mm
Width	1200mm
Thickness	50mm
Reaction to fire	Euroclass A1

pH neutrality

ROCKWOOL insulation is chemically compatible with all types of pipes, ducts, equipment 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).

Durability

ROCKWOOL stone wool insulation products have been proven in service for over 60 years, in a wide range of climates and degrees of exposure. ROCKWOOL insulation will generally perform effectively for the lifetime of the building, plant or structure.

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 and offers no sustenance to insects or vermin.

Water vapour resistance

When suitably taped, the aluminium foil gives DuoDuct a water vapour resistance of approximately 1000 MNs/g.

Installation

The following installation guidance notes should be read in conjunction with the recommendations given in BS 5970.

- The insulation should be handled with care to prevent and physical damage to the DuoDuct boards.
- DuoDuct is easily cut using an insulation knife or hand saw. Ensure that all board cuts are accurate and square to achieve close butting of the joints when applying to the ductwork.
- Duct surfaces must be clean, dry and free from grease, dust, dirt, rust and other foreign matter.
- DuoDuct must be securely fixed to the ductwork using a suitably approved adhesive or using self-adhesive stick pins or a combination of both fixing methods. The maximum surface temperature of the ductwork should not exceed the maximum service temperature of the selected fixing method; guidance should be sought from the manufacturers.
- DuoDuct should be installed with closely butted insulation joints, also ensuring a close fit to the actual ductwork.
- When installing onto horizontal ductwork the side boards must overlap the base (bottom) board and the top board must overlap the side boards (Figure 2).
- All board joints must be securely taped with suitable aluminium foil self-adhesive (Idenden type T303 or similar approved) to maintain a continuous vapour barrier.
- For the purposes of inspection and maintenance a suitably sized and sealed section of DuoDuct can be applied at access door locations if the door is not already pre-insulated

Figure 1

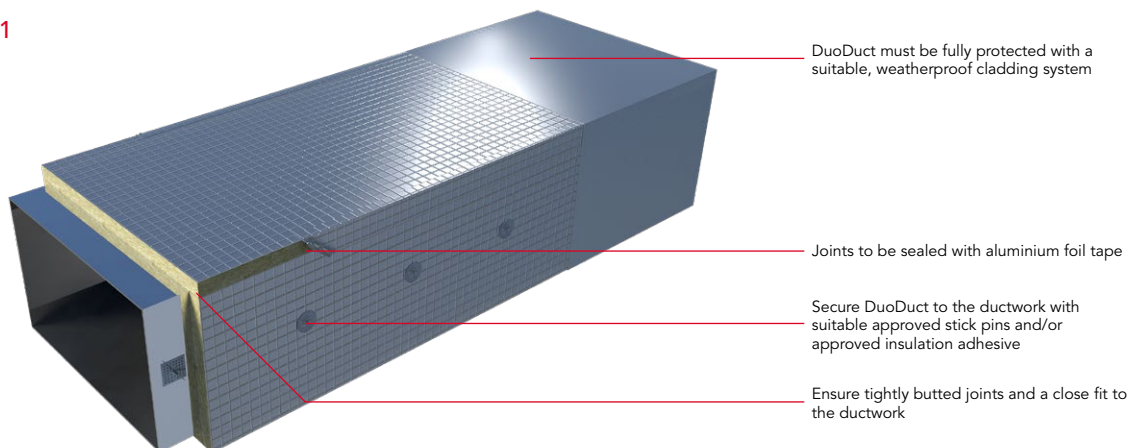
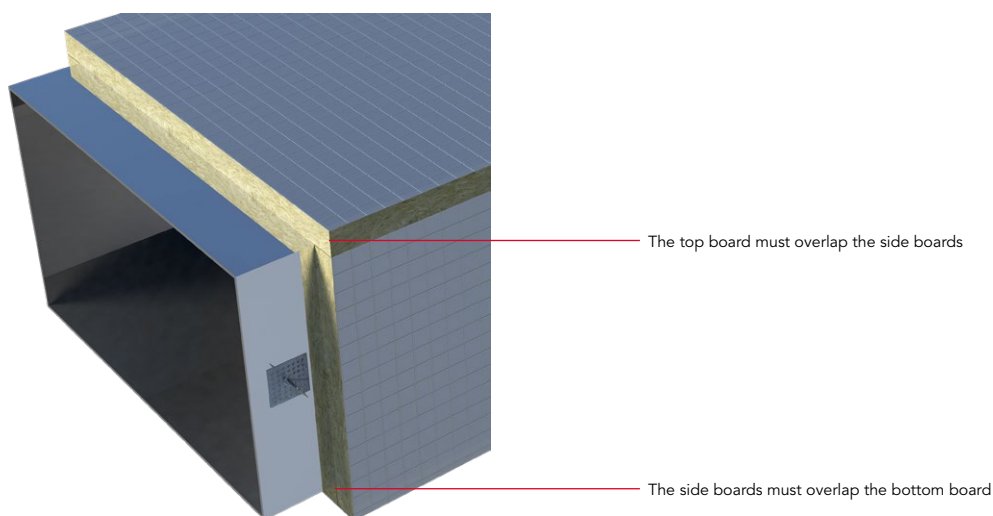


Figure 2



Weather protection

ROCKWOOL DuoDuct must be fully protected with a suitable weatherproof cladding system.

Suitable finishes include:

- a. Flat aluminium zinc coated steel protection
- b. Ribbed aluminium zinc coated steel protection
- c. Aluminium sheeting protection
- d. Mild sheet steel protection
- e. Self-adhesive weather resistant zero perm multi-layer laminate
- f. Polyisobutylene
- g. Roofing felt protection

The weatherproof cladding system chosen must always be installed in accordance with the manufacturers recommendations. For further information on suitable external finishes please refer to the HVAC Specification Guide available at www.rockwool.co.uk.

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.co.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.co.uk or contact the ROCKWOOL technical solution team on 01656 868490 or technical.solutions@rockwool.co.uk.

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:



Fire resistance



Acoustic comfort



Sustainable materials



Durability

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.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 information, contact the Technical Solutions Team on 01656 868490 or email technical.solutions@rockwool.co.uk
Visit www.rockwool.co.uk to view our complete range of products and services.

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The ROCKWOOL Trademark

ROCKWOOL® - our trademark

The ROCKWOOL trademark was initially registered in Denmark as a logo mark back in 1936. In 1937, it was accompanied with a word mark registration; a registration which is now extended to more than 60 countries around the world.

The ROCKWOOL trademark is one of the largest assets in the ROCKWOOL Group, and thus well protected and defended by us throughout the world.

If you require permission to use the ROCKWOOL logo for your business, advertising or promotion. You must apply for a Trade Mark Usage Agreement. To apply, write to:
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FIREPRO®

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marketcom@rockwool.com.

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