

# STEEL FRAME SLAB

Non-combustible thermal insulation designed  
specifically for steel frames



## STEEL FRAME SLAB

ROCKWOOL Steel Frame Slab delivers performance to meet and exceed thermal building regulations for external walls in steel frame buildings.

Being made from stone wool means the highest Euroclass A1 reaction to fire as well as exceptional sound absorption properties. The Steel Frame Slab delivers thermal performance at an optimal weight and features dimensions tailored for steel frame walls.





## Description

ROCKWOOL Steel Frame Slab is a semi-rigid insulation designed specifically for use between the studs in light gauge steel frame walls. The slabs deliver insulation with optimised density and performance; offering a low thermal conductivity, exceptional resistance to fire and outstanding sound absorption.

ROCKWOOL Steel Frame Slab has been tested to BS EN 13501-1 to achieve the best possible Euroclass reaction to fire classification - A1. ROCKWOOL stone wool acts as a barrier to fire, withstanding temperatures over 1,000°C and, crucially, does not produce toxic smoke.

ROCKWOOL stone wool insulation is also a highly effective thermal insulator, maintaining a comfortable indoor environment by protecting against fluctuations in outside temperature. ROCKWOOL Steel Frame Slab has been tested to BS EN 13162, achieving a thermal conductivity of 0.034 W/mK, at a low product weight - assisting in handling and installation, increasing the volume of product per pack and maximising the efficiency of the ROCKWOOL compression packing technology to improve both transport and storage efficiency.

Urbanisation is a strong trend that brings many benefits. However, with this comes busier roads, railways and airports, a higher population density and more sources of noise.

## Advantages

- Thermal performance - low thermal conductivity of 0.034 W/mK
- Non-combustible, non-toxic - Euroclass fire rating of A1
- Excellent sound absorption - high density, stone wool fibres
- Breathable - water repellent, and vapour permeable. Helps prevent rot and mould
- Durability - no slumping or sagging, maintains performance over time
- Sustainability - produced from abundant, renewable volcanic rock. 97% recyclable

ROCKWOOL stone wool insulation can help to combat this increasingly important issue. Made up of thousands of high-density stone wool fibres that trap sound waves and absorb vibration, ROCKWOOL Steel Frame Slab helps to prevent unwanted noise from disturbing indoor comfort.

Another benefit of ROCKWOOL stone wool insulation is its ability to repel liquid water, while still allowing water vapour to pass through. This allows the construction to both stay dry and be able to breathe; reducing the risk of condensation, which can lead to rot, mould and humidity damage.

Stone wool insulation has a unique physical structure, meaning that it keeps its shape over time, despite changes in temperature or humidity. This dimensional stability means performance is maintained through a building's lifetime. With a 600mm slab width and a dense, smart fibre structure, ROCKWOOL Steel Frame Slab is also quick and easy to fit, creating minimal waste. The slabs are robust and do not sag or slump, nor leave performance sapping gaps in the insulation layer; maximising in-situ performance.

## Applications

ROCKWOOL Steel Frame Slab has been designed specifically for quick and easy installation into standard size 600mm steel studs. This means less time to install, and a more reliable and long-lasting fit.

## Performance

### Thermal resistance

Tested to BS EN 13162:2012 + A1:2015 achieving a lambda value of 0.034 W/mK. Able to meet or exceed Part L (Conservation of fuel and power) of the building regulations.

### Reaction to fire

Tested to BS EN 13501-1 achieving a Euroclass A1 classification using test data from the reaction to fire test.

### Acoustic performance

The Steel Frame Slab can significantly reduce outside sources of noise when used in an external wall.

### Water resistance

ROCKWOOL stone wool repels liquid water due to its fibre orientation and a water-repellent additive.

### Condensation control

Vapour resistivity = 5.9 MNs/gm. Prevents ingress of liquid water but allows the escape of water vapour. ROCKWOOL stone wool insulation allows the construction to breathe, reducing the risk of condensation, which can lead to rot, mould and humidity damage.

Thickness (mm)	Width (mm)	Length (mm)	Pieces / pack	Area / pack (m <sup>2</sup> )	Packs / pallet	Area / pallet (m <sup>2</sup> )
90	600	1200	6	4.32	12	51.84
100	600	1200	6	4.32	12	51.84
120	600	1200	5	3.60	12	43.20
150	600	1200	4	2.88	12	34.56

### Standards and approvals

ROCKWOOL Steel Frame Slab has been tested to the requirements of BS EN 13162:2012 + A1:2015 'Thermal insulation products for buildings – Factory made mineral wool (MW) products – specification'.

## Installation

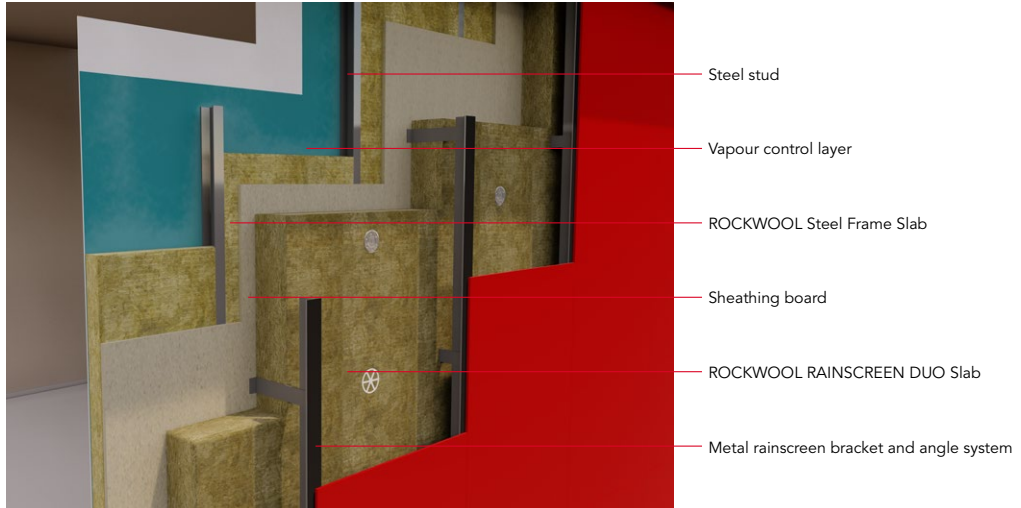
With an engineered optimal density, the Steel Frame Slabs are light and easy to install, sized to friction fit into 600mm steel studs without the need to cut or create waste. Any cutting that is required can be done quickly and easily, event in awkward spacing, using a sharp knife. The slabs are compressed and shrink wrapped in polyethylene film, supplied on pallets shrouded with a waterproof hood suitable for outside storage.

# STEEL FRAME SLAB

Typical wall constructions and u-value are listed in the tables below:

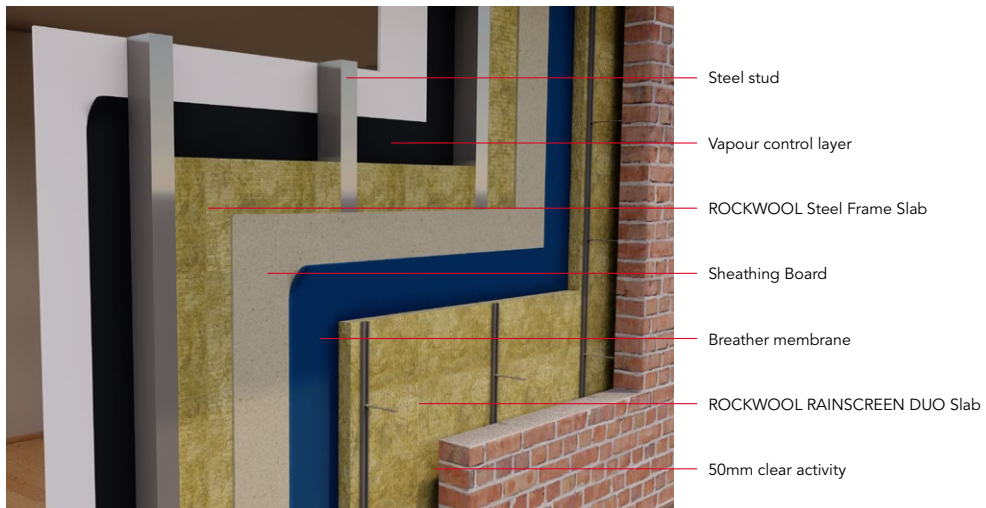
## External wall U-values – Example steel frame constructions

### 1. Steel Framing System / In-fill Walling with Rainscreen Facade



U-value (W/m <sup>2</sup> K)	Stud depth (mm)	Steel Frame Slab (mm)	RAINSCREEN DUO Slab (mm)
0.15	150	150	200
0.18	150	150	150
0.20	150	150	125
0.25	150	150	75
0.18	100	100	180
0.20	100	100	150
0.25	100	100	100

### 2. Steel Frame System with Brick Outer



U-value (W/m <sup>2</sup> K)	Stud depth (mm)	Steel Frame Slab (mm)	RAINSCREEN DUO Slab (mm)
0.27	100	100	50
0.24	150	150	50
0.19	100	100	100
0.17	150	150	100

## 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**

## 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.

## 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](http://www.rockwool.co.uk) to assist in the preparation of risk assessments, as required by the Control of Substances Hazardous to Health Regulations (COSHH).



## Interested?

For further information, contact the Technical Solutions Team on 01656 868490 or email [technical.solutions@rockwool.co.uk](mailto:technical.solutions@rockwool.co.uk)

Visit [www.rockwool.co.uk](http://www.rockwool.co.uk) to view our complete range of products and services.

*Copyright ROCKWOOL September 2018.*

### 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:  
[marketcom@rockwool.com](mailto:marketcom@rockwool.com).

### Trademarks

The following are registered trademarks of the ROCKWOOL Group:

ROCKWOOL®

ROCKCLOSE®

RAINSCREEN DUO SLAB®

HARDROCK®

ROCKFLOOR®

FLEXI®

BEAMCLAD®

FIREPRO®

### Disclaimer

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 brochure 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 brochure. The applications referred to within the brochure do not necessarily represent an exhaustive list of applications. ROCKWOOL Limited does not accept responsibility for the consequences of using ROCKWOOL in applications different from those described within this brochure. Expert advice should be sought where such different applications are contemplated, or where the extent of any listed application is in doubt.

© ROCKWOOL 2018. All rights reserved.

### Photography and Illustrations

The product illustrations are the property of ROCKWOOL Ltd and have been created for indicative purposes only.

Unless indicated below, the photography and illustrations used in this guide are the property of ROCKWOOL Limited. We reserve all rights to the usage of these images.

If you require permission to use ROCKWOOL images, you must apply for a Usage Agreement. To apply, write to:  
[marketcom@rockwool.com](mailto:marketcom@rockwool.com).

June 2019

**ROCKWOOL Limited**

Pencoed  
Bridgend  
CF35 6NY

Tel: 01656 862 621

[info@rockwool.co.uk](mailto:info@rockwool.co.uk)

[rockwool.co.uk](http://rockwool.co.uk)

