



NyRock® Frame Slab 032

Non-combustible stone wool insulation designed specifically for use within timber and steel frames

NyRock Frame Slab is a semi-rigid stone wool insulation slab designed specifically for use between the studwork of external timber or light gauge steel frame walls.

The slabs deliver insulation with optimised density and performance, offering a low thermal conductivity designed to meet and exceed thermal building regulations.

Manufactured using patented technology, NyRock Frame Slab 032 has a more efficient fibre structure that increases the density of air pockets trapped within each slab. This results in an improved thermal performance when compared to traditional stone wool products.

- Low thermal conductivity of 0.032 W/mK.
- NyRock Frame Slab 032 is able to resist temperatures of over 1,000°C achieving the highest Euroclass A1 non-combustibility classification as defined in EN13501-1.
- Stone wool is dimensionally stable and has been proven to provide the same performance for more than 55 years after installation.*
- The dimensional stability means the slabs will not slump or sag after installation.
- The slabs come in 570mm (timber) or 600mm (steel) widths allowing for quick and easy installation into frame walls.

*FIW, Durability Project Mineral Wool (2016), "Conclusions and Outlook." Available via EURIMA (European Insulation Manufacturers Association) at:
www.eurima.org/uploads/ModuleXtender/Publications/168/2017-02-21_EURIMA-55YearsOfUse_Info_Sheet_V08_final.pdf



NYROCK® FRAME SLAB 032



APPLICATIONS

NyRock Frame Slab 032 has been designed specifically for quick and easy installation into the standard size 600mm studs, of external timber or steel frame walls.

Stone wool insulation has a unique physical structure and durability, meaning that it keeps its shape over time, despite changes in temperature or humidity. With its dense fibre structure, NyRock Frame Slab 032 easily fits into frame walls, reducing the need for cutting, minimising waste and speeding up installation.

The dimensional stability means the slabs will not sag or slump after installation, with no gaps in the insulation layer, helping to maintain a consistent thermal performance for the lifetime of the building.

PERFORMANCE

Thermal performance

Tested to BS EN 13162:2012 + A1:2015 achieving a thermal conductivity λ value of 0.032 W/mK.

Fire performance

NyRock Frame Slab 032 is non-combustible achieving a reaction to fire classification of A1, as defined in EN13501-1.

Acoustic performance

The non-directional fibre orientation and density of stone wool means that sound waves are trapped, and vibrations dampened which can significantly reduce outside sources of noise when used in an external wall.

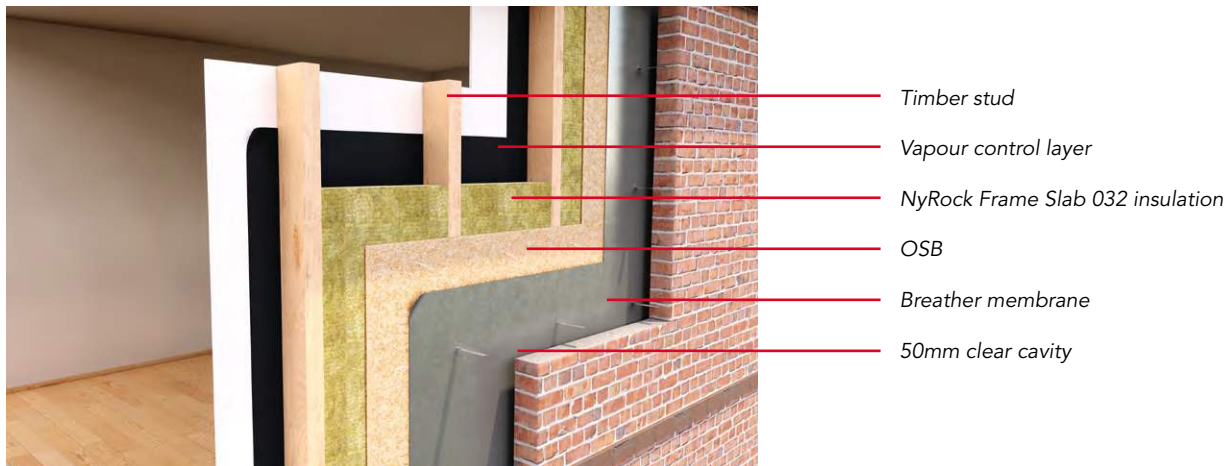
When used within an external wall consisting of a rainscreen facade, in combination with NyRock Rainscreen 032, NyRock Frame 032 can deliver result as high as R_w 60dB in a typical wall system.

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Application performance

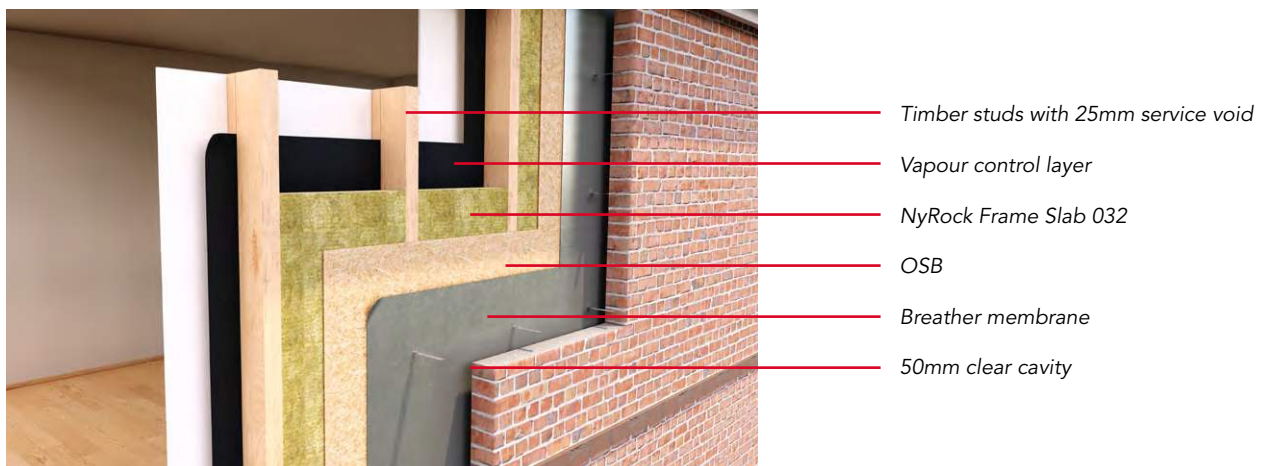
Timber frame external wall with brick finish / Insulation between the studs, without service void

Timber frame slab (mm)	Stud depth	U-value (W/m²K)	Vapour control layer		Breather membrane	
			Standard	Standard	Tyvek Reflex	Protect TF200 Thermo
140	140	0.27	✓	✓		
140	140	0.24	✓		✓	
140	140	0.23	✓			✓



Insulation between the studs, with service void

Timber frame slab (mm)	Stud depth	U-value (W/m²K)	Vapour control layer			Breather membrane		
			Standard	Tyvek Air guard	Protect VC Foil Ultra	Standard	Tyvek Reflex	Protect TF200 Thermo
90	89	0.35	✓			✓		
90	89	0.27		✓			✓	
90	89	0.25			✓			✓
140	140	0.25	✓			✓		
140	140	0.21		✓			✓	
140	140	0.20			✓			✓

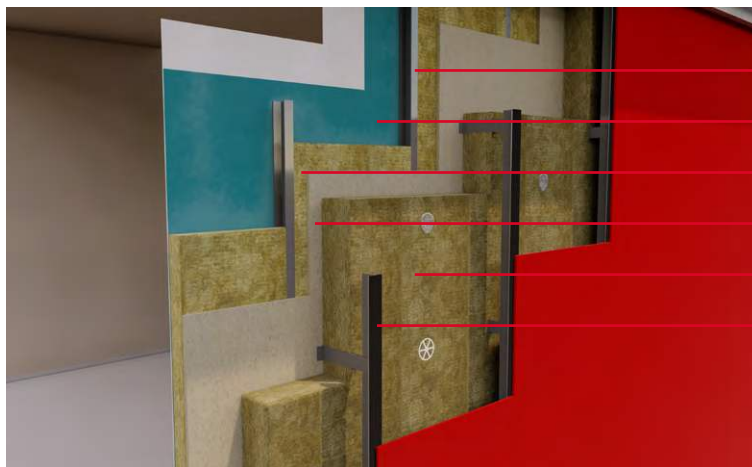


NYROCK® FRAME SLAB 032

Steel frame external wall

Steel Framing System / In-fill Walling with Rainscreen Facade

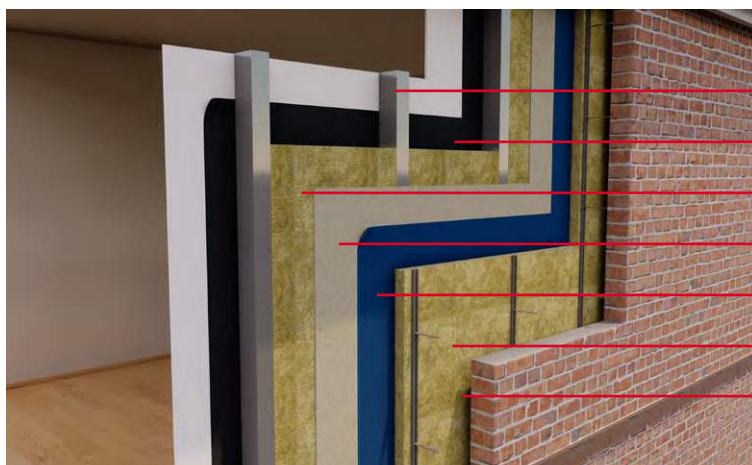
NyRock Frame Slab 032 (mm)	Stud depth	U-value (W/m²K)	NyRock Rainscreen 032 (mm)
150	150	0.14	190
150	150	0.15	170
150	150	0.16	150
150	150	0.17	125
100	100	0.15	200
100	100	0.16	180
100	100	0.17	160
100	100	0.18	145



- Steel stud
- Vapour control layer
- NyRock Frame Slab 032
- Sheathing board
- NyRock Rainscreen 032
- Metal rainscreen bracket and angle system

Steel Frame System with Brick Outer

NyRock Frame Slab 032 (mm)	Stud depth	U-value (W/m²K)	NyRock Rainscreen 032 (mm)
100	100	0.25	50
120	120	0.24	50
150	150	0.22	50
100	100	0.17	100
120	120	0.17	100
150	150	0.16	100



- Steel stud
- Vapour control layer
- NyRock Frame Slab 032
- Sheathing board
- Breather membrane
- NyRock Rainscreen 032
- 50mm clear activity

NYROCK® FRAME SLAB 032

PRODUCT INFORMATION

Thickness	Thermal resistance m ² K/W	Width (mm)	Length (mm)	Pieces/ pack	Area/ pack (m ²)	Packs/ pallet	Pieces/ pallet
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Timber application

90	2.81	570	1200	4	2.74	12	48
140	4.38	570	1200	3	2.05	12	36

Steel application

100	3.13	600	1200	3	2.16	16	48
120	3.75	600	1200	2	1.44	20	40
150	4.69	600	1200	2	1.44	16	32

ADDITIONAL INFORMATION

Durability

The thermal, fire-resistance, and acoustic performance of ROCKWOOL stone wool products, when correctly installed, remains the same during the life time of the building.

Water resistance and moisture

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

Condensation

Vapour resistivity = 5.9 MNs/gm, preventing ingress of liquid water, but allowing 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.

Vapour control and breather membranes – managing moisture

A vapour control layer is essential on the 'warm' side of the insulation and frame, to reduce the risk of condensation forming inside the building. Thermal benefits can be achieved by using high performance vapour control membranes when they have a low emissivity reflective surface, and 20mm or more of non-ventilated air space. The benefit to the u-value can be seen in the performance tables.

The low emissivity R-values used in the calculations for the service zone are based on manufacturers claims:

- Standard VCL = 0.180 m²K/W
- TYVEK AirGuard = 0.680 m²K/W
- Protect VC Foil = 0.780 m²K/W

Breather membranes

A vapour permeable membrane on the outside of the sheathing board is also necessary, this protects the timber frame from water penetration whilst allowing water vapour to escape. Again, enhanced thermal benefits are offered by reflective low emissivity membranes, where there is a clear air space of 20mm or more. The effect on the overall wall u-value can be seen in the tables.

The low emissivity R-values of the external cavity used in the calculations above are based on manufacturers claims:

- Standard breather membrane = 0.180 m²K/W
- TYVEK Reflex = 0.540 m²K/W
- Protect TF200 Thermo = 0.770 m²K/W

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STANDARDS AND APPROVALS

Certificate

Manufactured in accordance with BS EN 13162:2012+A1:2015 Thermal insulation products for buildings. Factory made mineral wool (MW) products. Designation code: MW-EN 13162-T4-WL-WL(P)-MU1.

Manufactured under ISO 14001 Environmental Management Systems, and ISO 9001 Quality Management Systems.



INSTALLATION

The product must be installed in accordance with the current ROCKWOOL guidelines. For further information please visit www.rockwool.com/uk or contact our Technical Solutions Team on 01656 868490.

SPECIFICATION CLAUSES

The following NBS clauses include NyRock Frame Slab 032:

P10

140

K10

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DISCLAIMERS

ROCKWOOL Limited, its affiliates, its agents and employees and all persons acting on its or their behalf (collectively "ROCKWOOL"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

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Information contained in this data sheet is up-to-date as at the date of issue. As ROCKWOOL Limited cannot control or anticipate the conditions under which this product may be used, each user should review the information in specific context of the planned use. To the maximum extent permitted by law, ROCKWOOL Limited will not be responsible for damages of any nature resulting from the use or reliance upon the information contained in this data sheet. No express or implied warranties are given other than those implied by law.

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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.com/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 insulation is recyclable and can be transformed into new ROCKWOOL products. For waste ROCKWOOL material that may be generated during installation, we are happy to discuss the individual requirements of contractors and users considering returning these materials to our factory for recycling.