

Note on English translation / Hinweise zur englischen Fassung

This is a translation of the product data sheet valid in Germany.

All stated details and properties are in compliance with the regulations of the German standards and building regulations. They are only applicable for the specified products, system components, application rules, and construction details in connection with the specifications of the respective certificates and approvals.

Knauf Gips KG denies any liability for applications outside of Germany as this requires changes acc. to the respective national standards and building regulations.

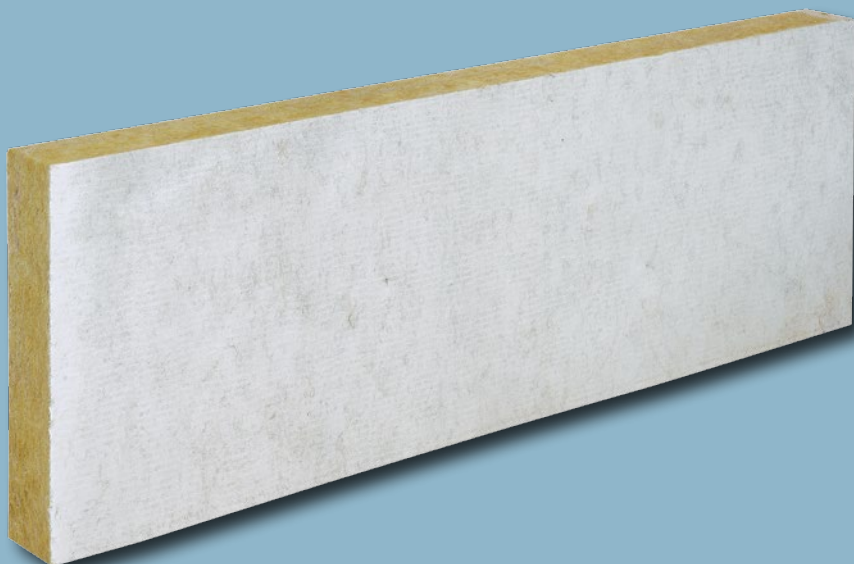


Plaster & Façade Systems

P365d.de

Product Data Sheet

2023-03



MW Wolle 035 plus M2

Façade insulation board with mineral wool coated on both sides

Product description

Non-combustible façade insulation board made of stone wool with adhesive coating for WARM WALL Plus in Solid Construction and Timber Construction, WARM WALL Ceramic / Natural Stone and system upgrading (doubling-up) applied to both sides. Corresponds with the demands of the WAP-zh acc. to DIN 4108-10.

Storage

Dry, protect against permanent humidity

Quality

In compliance with EN 13162, the product is subject to initial type testing and continuous factory production control and is marked with the RAL quality mark.

Properties and added value

- Mineral wool acc. to EN 13162
- Reaction to fire class A1 non-combustible acc. to EN 13501-1
- Thermal conductivity rated value $\lambda = 0.035 \text{ W/(m·K)}$
- Tensile strength perpendicular to the board level $\geq 7.5 \text{ kPa}$
- Thermal and sound insulating
- Water-repellent
- Diffusion permeable
- Pre-coated surface on both sides
- Dimensionally and geometrically stable
- Resistant to ageing



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Field of application

Insulation board as WAP-zh acc. to DIN 4108-10 and as plaster base board for the thermal insulation composite system acc. to the National Technical Approval / type approval:

- Z-33.43-82 WARM WALL Plus in Solid Construction
- Z-33.49-981 WARM WALL Plus Doubling-Up System in Solid Construction
- Z-33.46-424 WARM WALL Ceramic in Solid Construction
- Z-33.46-1703 WARM WALL Natural Stone in Solid Construction
- Z-33.47-899 WARM WALL Plus MW in Timber Construction

The permissible insulation thickness in solid construction is 340 mm (double-layer possible), for WARM WALL Ceramic/Natural Stone 200 mm and in Timber Construction 240 mm.

With good thermal insulation and sound insulation features, specially for use in non-combustible façades, such as in high-rise buildings.

Note	MW Wolle 035 plus M2 can be used with full-surface application and additional necessary dowelling as a fire break as well for fire protection measures with WARM WALL Basis, Keramik and system upgrading (doubling-up).
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Application

Substrate and pretreatment

Substrate	Pretreatment
Unstable coatings	Remove completely
Render hollows and cavities	Remove completely and fill with a suitable render, take the drying times into account
Concrete, paint coats, old render	Clean with a high-pressure water cleaner until dust-free and allow to dry completely
Chalking or sanding surfaces	Solidify by applying Grundol primer

Note	The contractor is solely responsible for inspecting the condition of the substrate and the on-site conditions.
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Preparation

Cover easily-soiled building components before application in accordance with Code of Practice "Abklebe- und Abdeckarbeiten für Maler- und Stuckateurarbeiten" issued by the Bundesverband Ausbau und Fassade. Protect weather-exposed surfaces from precipitation and direct sunlight. Preparation of the substrate in accordance with the table "Substrate and pretreatment". All substrates must be stable, dry, even and free of grease and dust as well as free of any residual substances that may reduce the adhesion. Test the stability and compatibility of existing coats before application of adhesive. Allow primer coats to dry for at least 12 hours before continuing work.

Prevent rising damp with corresponding measures. Irregularities in the substrate can be equalized up to maximum 20 mm with adhesive mortar. Major unevenness can be equalized using a suitable plaster layer or by staggering the insulation panel thickness.

Application

An optimum adhesive bonding is guaranteed by the adhesive coating on the surface. The adhesive coating is suitable for application of adhesive by hand or machine and contributes significantly to the reduction of the installation effort during application.

Adhesive bonding to substrate in solid construction

MW Wolle 035 plus M2 is applied with an approved adhesive, e.g. SM300, SM700 Pro, LUSTRO or Duo-Kleber adhesive onto the existing substrate from the bottom to the top as a flush aligned, flat and offset free bonded application. Cross joints must be avoided by a joint offset of ≥ 100 mm. Avoid penetration of adhesive into the insulation panel joints. Open board joints up to 5 mm width can be filled with not easily flammable filler foam B1, board joints > 5 mm or flaws must be filled with mineral wool insulation material. Corner grooving is unnecessary with insulation material thicknesses ≤ 200 mm.

Caution	Product side with coating free stripes = adhesive side Avoid penetration of adhesive into the insulation panel joints.
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Full surface adhesive application

A full surface adhesive bond by application of the adhesive on the board (by hand) or the wall (by machine) and subsequent ruling with a notched trowel is permissible.

Partial surface adhesive application

Partial surface bonding by hand application of the adhesive on the board is permissible. Apply an approx. 50 mm wide ribbon of mortar around the perimeter and 3 palm-sized adhesive mortar dabs or strips on the grooved / marked insulation board side. After pressing on the insulation panels, the share of the adhesive surface on the substrate must be ≥ 40 %.

Machine bonding by application of the adhesive on the wall is permissible. Spray on the mounds of adhesive approx. 50 mm wide and in the middle of the mound ≥ 10 mm thick at a clearance of ≤ 100 mm on the substrate. The adhesive bonding surface of ≥ 50 % must be observed.

With WARM WALL Ceramic and WARM WALL Natural Stone an adhesive bonding surface of ≥ 60 % must be observed.

Double layer application of mineral wool boards to one another with WARM WALL Plus in Solid Construction

Double layer application must have the layers bonded to one another. The boards must have a partial or full surface adhesive bonding to one another using a mineral based adhesive. The share of adhesive surface must be at least 50 % between the individual layers.

Note	With insulation thickness from > 200 to 340 mm: <ul style="list-style-type: none"> ■ Boards can be applied as a single layer up to 300 mm. ■ For double-layer application, boards of between 60 to 180 mm can be combined as desired with one another.
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Installation on the bottom of the ceiling

Application on solid construction acc. to Z-33.43-82 on bottoms of ceilings made of concrete or possible without plaster with dowelling through the reinforcement mesh with STR U 2G dowels. The adhesive bonding of the insulation panels for the bottom of the ceiling can be undertaken on the full or partial surface. Bonding with SM300 is not approved. Double-layer application for the bottom of the ceiling is not permissible. Mineral wool insulation material in a thickness of 80 – 200 mm can be used.

Adhesive bonding in timber construction

Full surface bonding by application of the adhesive on the board and subsequent ruling with a notched trowel is permissible.

Note	Adhesive bonding using an adhesive foam is not permissible for mineral wool boards.
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Dowelling

In addition to adhesive bonding, the MW Wolle 035 plus M2 insulation panels will generally require dowelling. The adhesive mortar must have dried sufficiently before the dowels are applied. The surface flush dowel installation can be undertaken with or without additional dowel plates through or under the mesh. Using dowel STR U 2G the installation can be recessed, with dowel plate VT 2G it can be lowered and with Ecotwist it can be countersunk under the mesh.

In timber construction, the mechanical fastening of the insulation materials is undertaken using STR H A2 or STR H E dowels.

Note

Further technical information and specifications for application and dowelling acc. to [WE112.de](#) WARM WALL Plus in Solid Construction, [WE202.de](#) WARM WALL Plus MW in Timber Construction, [WE101e.de](#) WARM WALL Ceramic/Natural Stone as well as [P323-E01.de](#) WARM WALL Plus – Doubling-Up in Solid Construction and product data sheets of the corresponding system components.

Note

Apply for plinth insulation board with the splash water zone up to 300 mm above the edge of the ground line. Create connections to other constructional components using suitable connection profiles or joint sealing tape as proof against driving-rain.

Application temperature/climate

Do not apply material below +5 °C and above +30 °C. The setting time of the adhesive must be considered. The substrate must be frost-free. Protect the insulation panels against moisture during application and storage. The internal plastering and screed works should be completed and the components should be dry enough so that an excessive accumulation of moisture is avoided.

Technical data

Description	Standard	Unit	MW Wolle 035 plus M2
Reaction to fire	EN 13501-1	Category	A1
Melting point	–	°C	> 1000
Smouldering behaviour	EN 16733	–	No propensity for continuous smouldering
Density	EN 1602	kg/m ³	Approx. 105
Rated value of thermal conductivity λ_D	EN 13162	W/(m·K)	0.034
Rated value of thermal conductivity λ_B	DIN 4108-4	W/(m·K)	0.035
Tensile strength perpendicular to the board level σ_{mt}	EN 1607	kPa	≥ 7.5
Shear strength	EN 12090	kPa	≥ 15
Compressive stress with 10 % compression σ_{10}	EN 826	kPa	≥ 20
Water vapour diffusion resistance μ	EN 12086	–	1
Length-related flow resistance r	EN 29053	kPa·s/m ²	> 40
Dynamic stiffness s'	EN 29052-1	MN/m ³	60 mm ≤ 13 80 mm ≤ 11 100 mm ≤ 8 120 mm ≤ 7 140 mm ≤ 6 160 – 180 mm ≤ 5 200 – 220 mm ≤ 4 240 – 300 mm ≤ 3

The stated technical data were evaluated acc. to the respective test standards. Deviations under site conditions are possible.

Product range

Description	Thickness	Width	Length	Packaging unit		Material number	EAN
	mm			m ² /package	m ² /pallet		
MW Wolle 035 plus M2	60	400	1200	1.92	19.20	00609492	4003950120015
	80			1.44	14.40	00609495	4003950120046
	100			0.96	11.52	00609508	4003950120077
	120			0.96	9.60	00609509	4003950120107
	140			0.96	7.68	00609511	4003950120138
	160			0.96	5.76	00609515	4003950120169
	180			0.96	5.76	00609516	4003950120190
	200			0.96	5.76	00609518	4003950120220
	220			0.48	4.80	00609519	4003950120251
	240			0.48	4.80	00609520	4003950120282
	260			0.48	3.84	00609521	4003950120312
	280			0.48	3.84	00609522	4003950120343
	300			0.48	3.84	00609523	4003950120374

MW Wolle 035 plus M2 is an equivalent for the following product:
Knauf Insulation plaster base board FKD-MAX C2

**Observe safety data sheet!**

For safety data sheets and CE marking see
pd.knauf.de



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