ETICS Adhesion and Reinforcement Mortar L 3500

WDVS Klebe- und Armierungsmörtel L 3500

mineral, fiber-reinforced light mortar for gluing and reinforcing of ETICS insulation boards

Properties

Mineral, fiber-reinforced light mortar powder. Hard-wearing, long open time and easy to use. Good adhesion on mineral substrates and ETICS facade insulation boards. Weather-resistant, water-repellent while being highly water vapor permeable. Can be processed manually or using machines. In system build-up hardly inflammable B1 or non-combustible A2 according to DIN 4102.

Field of Application

For gluing and reinforcing of ETICS hard foam, ETICS mineral wool and ETICS Stone Mineralwool Lamella Board in Brillux ETIC systems I through VI. Particularly suitable for thick-layer reinforcement (layer thickness 4 to 7 mm) in Brillux ETIC system on ETICS mineral wool and ETICS Stone Mineralwool Lamella Board, for obtaining a level reinforcement layer easily.

Material description

Color: bright beige
Bonding agent basis: mineral bonding agent according to DIN 1060 and DIN EN 197
Bulk density: approx. 1.0 g/cm³
Layer thickness:
min. 4 to max. 7 mm

Toothed trowel:	Layer thickness:
10 x 10 mm	4 mm
15 x 15 mm	5 to 7 mm

Packaging:
25 kg sacks
1.000 kg LOGO S 1600
(silo with continuous flow mixer)
800 kg Big-Bag

Use

Addition of water
Approx. 9 to 10 liters per 25 kg sack.

Compatibility
Do not mix with other materials.

Mixing
Using a high-power agitator (min. 900 W) and a right handed spiral or continuous flow mixer, mix ETICS Adhesion and Reinforcement Mortar L 3500 and water until a homogeneous, paste-like mortar is obtained. Mortar to be applied manually using a stainless steel smoothing tool or suitable worm conveyor devices.

Pot time
Approx. 2 hours, depending on weather.
Never readjust solidifying material to application consistency or dilute with water again.

Consumption
(on level substrates)
For gluing
Edge-bead-point method: approx. 3.5 kg/m².
In the case of machine application (60% surface gluing of pre-coated stone lath insulation Boards): approx. 5.5 kg/m².
In the case of full-surface gluing of pre-coated ETICS Stone Mineralwool Lamella Board (with toothed trowel, e.g. 15 x 15 mm): approx. 4.5 kg/m².

For reinforcement
Approx. 1.1 kg/m² per mm of layer thickness.

Determine exact consumption by way of a test application on the object.

Application temperature
Do not apply if the air and object temperature is lower +5 °C or higher than +30 °C (also during curing time).

Drying (+20 °C, 65 % relative humidity)

Approx. 2 to 3 days, depending on layer thickness.
Insulation boards glued using ETICS Adhesion and Reinforcement Mortar L 3500 can be doweled and reinforced after 3 days at the earliest, depending on weather.
Reinforced surfaces can be coated with light mineral plaster (after 2 days at the earliest) or other top coats (after 5 days, at the earliest).
In the case of lower temperatures and/or higher atmospheric moisture, allow for longer drying time.

Gluing

Depending on the insulation boards to be fixed, ETICS Adhesion and Reinforcement Mortar L 3500 can be applied on the insulation board or the substrate.

Substrate preparation
The substrate must be clean, solid, dry, stable, load bearing, with good grip and free from any efflorescence, sintered layers and separating agents. On smooth substrates, e.g. prefabricated concrete structures, we recommend performing a test application in order to assess the adhesion.
The substrate must be pretreated according to the actual condition and the requirements. Remove projecting mortar or concrete parts mechanically, level major unevenness of surface using a suitable mortar, e.g. plaster of plaster mortar group PII. Check existing plaster for solidity and hollow areas, check existing coats for their bearing capacity.
Remove non-bearing plasters and coatings completely. Substrates are to be primed, if necessary, with Lacryl Deep-Penetrating Primer ELF 595. Also see VOB Part C, DIN 18363 and 18345, Section 3.

Application on insulation board
Hard foam insulation boards
Using a stainless steel application tool or machine, apply the prepared mortar on the edge of the back side of the insulation board as a bead on all sides, and at least three points on the back side surface.
The bead must have surface contact (at least 5 cm wide) on all sides. As soon as the material is applied, fix and align the insulation boards immediately. When the board is fixed, the adhesion surface must at least be 40 %.

Mineral wool insulation boards
Using a stainless steel application tool or machine, apply the prepared mortar on the edge of the back side of the insulation board as a bead on all sides, and at least three points on the back side surface. To ensure sufficient adhesion, press the material in the insulation boards first (press-filling) and apply required quantity of material in a second work step. As soon as the material is applied, fix and align the insulation boards immediately. When the board is fixed, the adhesion surface must at least be 40 %.

Mineralwool Lamella boards
Apply prepared mortar to complete surface pre-coated ETICS Stone Mineralwool Lamella Board 3611 and comb with a toothed trowel 15x15 mm.

Application on substrate in the case of ETICS hard foam and stone lath insulation boards
Using a suitable worm conveyor, the prepared mortar is applied in vertical serpentine strips to the pre-treated substrate, so that the mortar beads cover at least 50 / 60 % of the substrate. The mortar beads should be approx. 5 cm wide and the max. distance between the beads should be 10 cm. If uneven areas must to be leveled, apply thin layer of material, allow to cure, and then apply the amount of material required for fixing the boards. Immediately fix the insulation boards, while the adhesion mortar is still fresh. When fixing the ETICS insulation boards, the boards must be moved back and forth slightly. Skin forming of the mortar is to be avoided. The quantity of Adhesion mortar to be applied depends on the open time of ETICS Adhesion and Reinforcement Mortar L 3500 and the weather and object conditions.

If applied on the whole substrate surface (only recommended in the case of level, smooth substrates), the adhesion mortar is to be "combed" after application using a toothed trowel
(10 x 10 mm or 15 x 15 mm).

Reinforcement

Using a machine or stainless steel trowel, apply a sufficient layer of the mixed ETICS Adhesion and Reinforcement Mortar L 3500 on the whole surface of the insulation boards. Then “comb” the mortar using a toothed trowel (toothing according to layer thickness, do not scratch down to substrate). Embed ETICS Glass Fiber Mesh 3797 in the mortar and smoothen the surface.
For reinforcement of mineral wool insulation boards, if thick layers are to be applied manually, we recommend applying a first thin mortar layer first and then applying the required amount of material in a second step and “combing” the material as described above.

During application and drying, protect the surfaces against direct sunlight, strong wind and moisture impact.

For more information on reinforcement, refer to data sheet “ETCIS Glass Fiber Mesh 3797”.

Top coat

After the reinforcement layer has cured and dried sufficiently, the top coat can be applied using, depending on the selected Brillux ETICS, Rausan (organically bound plaster), silicone plaster, Silcosil (silicone reinforced plaster) or flat panels in combination with the corresponding system primer. In the case of top coats with Brillux Light Mineral Plaster, no priming is required.
Reinforcement layers penetrating the soil must be protected by BaseTec 3540.

Tool cleaning

Clean tools immediately after use with water.

Storage

Store at a cool and dry place, protect against moisture.

Declaration

Water pollution class
WGK 1, according to VwVwS.

Product code
ZP1.

The data in the current safety data sheet applies.

Notes

Cover surfaces
Carefully cover window sills and attachment structures/ components as well as glass, ceramic, clinker, natural stone, painted and anodized surfaces.

Thick-layer reinforcement
When applying thick-layer reinforcement (5 to 7 mm), we recommend using ETICS Snap-On Section 3685 to obtain a neat lower system termination. For easy execution of corners we recommend using ETICS Fiber Corner Section DS 3686 and for neat impact rainproof connections to windows and doors, for example, we recommend using ETICS Window Joint Profile 3707.

Reinforcement protection
Do not use in direct sunlight to protect against premature drying.

Machine processing
When using machines for processing comply with machine manufacturer instructions.

Further information
Follow the instructions in the data sheets of the products used.

To ensure an appropriate system build-up, comply with the information given in the general building inspection test certificate. This certificate must be available on site. For a copy, contact Brillux.

CE- Marking

CE

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EN 998-1:2010
Light plaster mortar CS II for exterior use

3500-998-01

Coefficient of vapor permeability	≥ 20 µ
Water absorption	W2
Adhesive strength	≥ 0,08 MPa
Thermal conductivity	(λ10, dry, mat) ≤ 0,25 W/(m·K) for P=50% (table value) (λ10, dry, mat) ≤ 0,27 W/(m·K) for P=90% (table value)
Reaction to fire	A2-s1,d0

Remark

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When a new version of this Data Sheet appears with updated information the previous version no longer applies. The current Version of this information sheet can be obtained at Brillux. Version I

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