



**Detailed instruction  
of FAST W mineral wool  
exterior walls insulation system**

**-- 2006 --**

## **I. General characteristics of FAST W exterior walls insulation system**

Insulation of external buildings' walls using FAST W has a Technical Approval ITB AT-15-6141/2005.

The system is a layers' structure which consists of:

- mineral wool plates,
- reinforced layer made of glue mortars and glass fibre net,
- plaster undercoats.

In the FAST W system mineral wool plates are glued to the base of insulated wall with a glue mortar. Additional fixing of the plates with mechanical joints (screw anchors) is used dependent on:

- the kind of base,
- its condition,
- foreseen loads,
- guiding principles of technical project.

The FAST W system based on mineral wool with mineral plaster and silicate or silicone paint consist of the following materials:

- Mortar glue FAST NORMAL W to fix mineral wool panels to the insulated base
- Mortar glue FAST SPECIAL W to fix mineral wool panels to the insulated base (used exchangeable with FAST NORMAL W) and to execute reinforced layer made of glass fibre net on mineral wool panels
- mineral wool panels FASROCK in accordance with ITB AT-15-2583/2004
- Mechanical joints
- Glass fibre net VERTEX 145A/ AKE 145 by AT-15-3833/2005
- Grounding preparation - FAST GRUNT M plaster undercoat
- Mineral plaster mortar FAST BARANEK / FAST KORNIK
- Grounding agent: FAST GRUNT S for FAST F-S paint and FAST GRUNT SIL for FAST SILIKON paint
- Paints: silicate paint FAST F-S and silicon paint FAST SILIKON
- And supplementary elements i.e. slats, corners, sealing materials etc.

The FAST W system based on mineral wool with silicate plaster consist of the following materials:

- Mortar glue FAST NORMAL W to fix mineral wool panels to the insulated base
- Mortar glue FAST SPECIAL W to fix mineral wool panels to the insulated base (used exchangeable with FAST NORMAL W) and to execute reinforced layer made of glass fibre net on mineral wool panels
- mineral wool panels FASROCK in accordance with ITB AT-15-2583/2004
- Mechanical joints
- Glass fibre net VERTEX 145A/ AKE 145 by AT-15-3833/2005
- Grounding agent - FAST GRUNT S
- Silicate plaster mortar FAST BARANEK-SILIKAT/ FAST KORNIK-SILIKAT
- And supplementary elements i.e. slats, corners, sealing materials etc.

FAST W insulation system can be applied to insulate external walls in newly raised buildings as well as existing ones.

In accordance with Technical Approval AT-15-6141/2005 issued by ITB FAST W insulation system are classified as no spreading fire (NRO).

FAST W insulation system is to be applied in accordance with:

- technical documentation for a given object, defining preparation of base, mineral wool panels' thickness, kind, quantity and distribution of mechanical joints, finishing of special places of elevation (windows and doors jambs, balconies, pedestals, dilatation),
- the given detailed instruction of insulation,
- instruction ITB No. 334/2002,
- decisions of Technical Approval ITB AT-15-6141/2005,
- valid Polish Norms and regulations.

Construction work, connected with applying of FAST W insulation systems should be executed by specialised companies, which have a certificate of FAST system and guarantee proper quality of executed insulation work.

Materials are delivered in original manufacturer's package. Transportation and storage of materials are to be executed in accordance with manufacturer's instructions in order to protect them from damage.

The layers of FAST W insulation system have precisely defined functions:

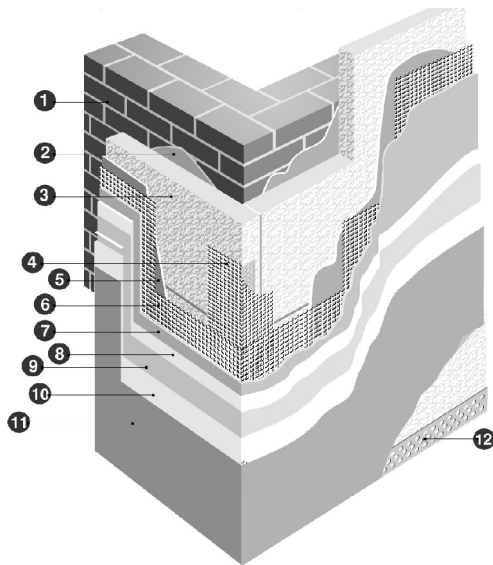
- the suitable thickness of mineral wool panels assures required thermal isolation,
- mortar glues and joints, which fasten mineral wool panels to walls assure constructional stability of insulation
- glue mass spread onto whole surface of mineral wool panels alongside with the glass fibre net is a protective layer, which protects the insulation system from mechanical damages,
- glass fibre net limits deformations of thermal protective layer, prevents from cracks and enlarges the resistance of glue mass to mechanical damages,
- lining plaster is a finishing line to insulation system surface, it protects from damaging influence of atmospheric factors, enlarges endurance onto hitting,
- proper selection of colouring and surface quality and contributes to aesthetical appearance of a whole building.

FAST W insulation system fulfill requirements of required thermal isolation under condition of proper realization of insulation.

Following the proper technology of realization permits to obtain the proper quality of work and insulation durability of 30 years.

**FAST W insulation systems require application of defined materials exclusively. Individual materials of FAST W insulation systems must not be replaced with different ones.**

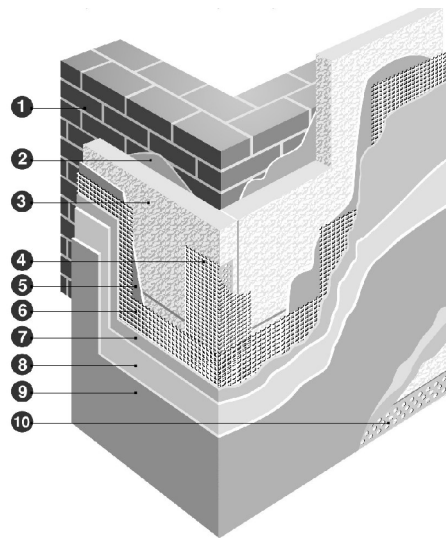
### Insulation with mineral plaster



#### Elements of FAST W system:

- 1- insulated wall
- 2- mortar glue FAST NORMAL W
- 3- mineral wool panel
- 4- protective corner with the glass fibre net
- 5- mortar glue FAST SPECIAL W
- 6- glass fibre net
- 7- mortar glue FAST SPECIAL W
- 8- plaster undercoat FAST GRUNT M
- 9- thin layer, silicate plaster mass  
FAST BARANEK/ KORNIK
- 10- FAST GRUNT S
- 11- silicate paint FAST F-S/ silicone paint  
FAST SILIKON
- 12- plinth board

### Insulation with acrylic plaster



#### Elements of FAST W system:

- 1- insulated wall
- 2- mortar glue FAST NORMAL W
- 3- mineral wool panel
- 4- protective corner with the glass fibre net
- 5- mortar glue FAST SPECIAL W
- 6- glass fibre net
- 7- mortar glue FAST SPECIAL W
- 8- plaster undercoat FAST GRUNT S
- 9- silicate plaster
- 10- plinth board

In order to perform insulation work in accordance with FAST W typical tools are to be used.

The tools and equipment are as follows:

- wire handbrush and mechanical wire brush as well as horsehair brush to clean, wash and ground walls' surface,
- trowels, spatulae, metal floats stainless and from artificial material to apply mortar glues and plaster masses,
- floats with abrasive paper to level a surface and the edge of mineral wool panels,
- long floats to tighten mineral wool panels to walls and corners' surface
- patches, short and long (2m) mason's levels to check the walls' surface and pion of corners and walls,
- saws, knives and scissors to cut mineral wool panels,
- electric slow-speed drill with mixer to prepare mortar glues and plaster undercoats as well as containers for mortars and masses,
- hammers and screwdrivers,
- devices to wash walls surface with water under pressure,
- scaffolding and devices for vertical transportation.

## **II. Technical requirements and technological performing of external walls using FAST W insulation systems.**

Technical requirements and technological realization of external walls insulation using FAST SM/ FAST SA systems are based on guiding principles included in:

- Instruction ITB 334/2002,
- Technical Approval ITB AT 15-6141/2005,
- technical literature concerning insulation,
- other publications from technical periodicals.

Order of executing insulation work using FAST W is as following:

- 1) completion of equipment and technical devices, assembly of scaffoldings,
- 2) preparation of walls' base, disassembly of downpipes' holders, installation of new enlarged length holders (apply to insulation of used buildings),
- 3) disassembly of existing and performing of new roof work,
- 4) sticking of mineral wool panels, additional foldings if needed,
- 5) applying mortar glues on mineral wool panels and then on glass fibre,
- 6) realization of lining plaster
- 7) realization of plasters from silicate or mineral plaster mass – in case of mineral plasters it should be grounded with grounding agent such as FAST GRUNT S or FAST GRUNT SIL and silicate paint FAST F-S or silicone FAST SILIKON should be applied
- 8) disassembly of scaffoldings.

### **1. Completing of equipment and technical devices, assembly of scaffoldings**

List of tools, equipment and devices have been described in Section 1 of the Instruction.

Use of metal scaffoldings from ready-to-use elements allows easy and fast assembly. In exceptional cases it cradle scaffoldings may be used.

While using cradle scaffoldings there is no possibility to protect insulated walls against rain, wind and sun.

Protection of walls assures appropriate temperatures (defined in the Certificate) and avoidance of excessive sun and drying up of walls' surface as well as protection of insulated layers against rain through a period of **at least 1 day** since their realization and plaster **at least 3 days**.

While using cradle scaffoldings shields are to be attached. It should be done in such a way that while changing swinging cradle's altitude one does not damage glued mineral wool panels, reinforcement layer or plaster.

### **2. Preparation of walls' base.**

FAST W insulation systems can be used on newly raised buildings' walls as well as on existing buildings (used from years). In both cases proper preparation of walls' base is a basic requirement.

## 2.1 Preparation of new buildings walls' base.

Walls' base made of: ceramic bricks, concrete, ceramic plastered bricks and prefabricated units are to be cleaned from dust, washed off under high pressure.

If defects or faults in surfaces of walls and on prefabricated elements joints exceed 10mm occur the place is to be leveled with mortar FAST Z-T.

Faults exceeding 30mm are to be leveled with applying mineral wool layer, which changes thickness.

Base made of cellular concrete, hollow bricks, silicate bricks, which strongly absorb water should be cleaned of dust with steel brushes and washed off under pressure.

Defects in walls' planes and faults more than 10 mm should be leveled with FAST Z-T mortar, all surface area should be grounded with FAST GRUNT G.

Walls' surfaces, which strongly absorb water should be grounded using FAST GRUNT G.

After drying of the base bed – after washing off– a test of applying mineral wool is to be done. 8-10 samples of mineral wool , size 20x20cm should be glued in different places.

FAST NORMAL W mortar of a layer thickness – 10 mm, is used to glue samples of free fibre. The samples with mortar should be pressed down to marked walls' planes.

After 4 to 7 days one should try to tear off the glued mineral wool. If mineral wool tears off it means sufficient endurance of base and adhesiveness of glue. If mineral wool samples tears off alongside with glue layer it means that the base had not been cleaned properly or that the top layer does not have sufficient dururances.

In such case surfaces should be cleaned more carefully and the test of gluing mineral wool should be performed again. If samples tears off alongside with the base layer, one should foresee using of mechanical links – with reference to calculation but no less than eight joints onto mineral wool plate (size 100x100cm).

**Precise number of joints on 1m2 and their length must be defined by the design engineer considering kind and condition of the base (walls) and existing loads.**

Before performing insulation work clamps, which regard insulation thickness, are to be installed. Moreover, roof work should be done and windowsills should be installed.

No chemical agents are to be used to was off walls because they could come into reaction with FAST NORMAL W.

## 2.2 Preparation walls of used buildings (for a longer time ).

On elevations (walls) of used buildings for longer time FAST W insulation system can be applied. Careful preparation and check of walls' base is a basic requirement.

In order to prepare old base the following steps are to be done:

- in case of durable walls moistness or their fragments - remove the cause of moistness and dry the place.
- remove places of fungal attack and eliminate the places,
- clean from dust, tarnish, bloom (FAST MUR), next wash off under pressure,
- remove flaked paint or flaked plaster with brushes,
- wash off greasy and decorated walls fragments,
- smooth surfaces are to be given roughness with brushes or sand-blasting

- oily and emulsive paints and other with poor adhesiveness are to be removed sand-blasting,
- where there is a deaf sound remove plaster and apply new one,
- surface-damaged plasters should be removed and leveled with FAST Z-T mortar,
- if openings' frames after insulation work have been covered, the plaster from frames should be removed in such a way that in this place mineral wool (min. 2-3cm) insulation is possible
- complete plaster loss,
- if there are different set-offs and losses with depths over 10mm – the places are to be leveled with mortar FAST Z-T
- no-plastered walls' baseform cellular concrete blocks, hollow bricks and silicate bricks should be not only cleaned from dust and algae but also they should be given a rough surface in order to obtain better mortar adhesiveness,
- absorbable bases (such as cellular concrete, silicate bricks, calcareous-cement plaster) should be grounded with FAST GRUNT G,
- disassemble existing downpipes' holders and roof work.

#### **Ad.4. Sticking of mineral wool panels.**

Before performing FAST W insulation in new buildings the following works are to be finished.

- all inner plasters and floor must be finished. If mass moisture of dry plasters and floors does not exceed 4%, it is acceptable.
- windows, doors and blinds must be installed,
- windowsills, pipe holders, plug-in sockets, air grates etc. must be installed.

Bases, where mineral wool panels are to be stucked must be dry.

It is essential that the bases, which had been washed and cleaned with water are dry.

If the base moisture does not exceed 4% of mass moisture mineral wool panels can be glued.

Walls made of absorbable materials (such as cellular concrete, silicate bricks) checking the condition of the walls' surface and plaster is not enough. Moistness of the inner walls should be checked as well.

Mineral wool panels should be glued when ambient temperature is from +5°C to +25°C and walls' temperature is +5°C to 25°C, when it is dry weather. When there is strong wind and excessive walls' insulation, where mineral wool panels will be glued one should use net shields or foil, which will protect from too fast water evaporation from the mortar.

To glue mineral wool panels one should apply FAST NORMAL W. In spring-autumn period, despite ambient temperature +5°C to +25°C walls' temperature should be checked because there is possibility of their cooling due to night temperatures drop (even below 0° C).

The work is to be continued provided that 24 hours after gluing mineral wool thermal layer the ambient temperature does not drop below 0°C.

Mortar preparation:

Bag content is to be poured slowly into a vessel with cool water, while pouring one should mix it using slow-speed drill with suitable mixer till the consistency of uniform paste is obtained. The mass is to be left for about 10 minutes and then mixed again. About 5,5l of water is used for a 25 kg sack. It is advisable to mix the mortar occasionally when it is ready. The ready mortar should be used in a next 2,5 to 3 hours. It is advised to stir the mortar every 30 minutes.

**One mustn't add water to ready-to-use mortar in order to improve her consistency.**

Before gluing mineral wool panels, board laths should be fixed. Board laths are aluminium profiled sections whose width is suitable to mineral wool panels' thickness. Using board laths allows to level bottom edge of insulation. The board laths are installed with stretcher pins.

Glue mortar should be applied on the mineral wool panels' edges, as 3-4cm width strips, about 3 cm from the boards' edge in such a way that while sticking the glue mortar do not squeeze outside mineral wool panels' edges.

On the central part of the board 50x100cm size, about 10-12 pats, diameter 8 cm each, should be placed.

The rule that pats cover no less than 40% of board's surface must be followed.

The whole of glue layer should cover about 60% of board's surface.

Glue mortar should be applied in two stages, whether you glue the whole surface or just the stripes. During the first phase the whole panel surface is thin filled with glue or places for future "cakes".

Then using float (teeth size 10x10mm) spread the proper glue mortar on the whole surface. Or in a filled places.

The glue mortar should cover no less than 60% of the panel's surface, and the use of FAST NORMAL W glue in both layers should be about 5kg of the dry mass / 1m<sup>2</sup>.

Having the glue mortar applied mineral wool panels should be placed to the wall in a marked place, fixed butt to glued boards and tighten with long float till the even surface with boards is obtained.

The panels should be squeezed overcoming panels' elasticity- it allows to set panels tightly.

The mortar which has squeezed outside the board must be removed.

**One mustn't tighten mineral wool panels over again or move glued boards due to commenced process of bonding.**

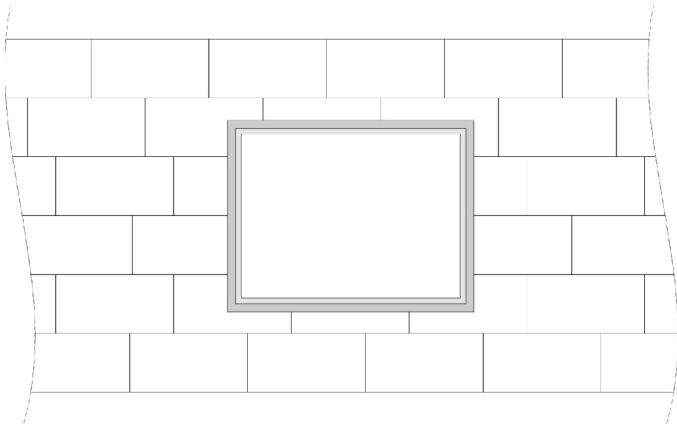
The boards are glued precisely one into another, from board laths to eaves, maintaining passing arrangements of joints.

While gluing mineral wool panels near openings' corners the boards should be chosen in such a way that horizontal and vertical joints do not meet at the openings' edges.



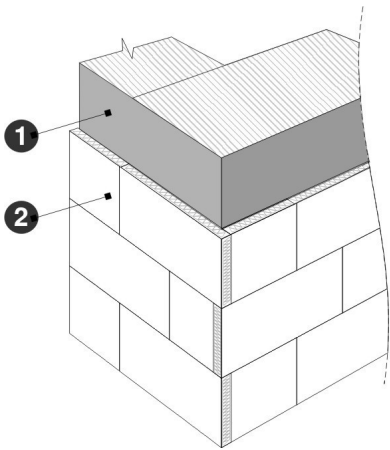
The drawing represents proper boards' arrangement near openings.

**The proper location (sticking)  
of mineral wool panels near openings**



While insulating walls made for prefabricated units, the mineral wool panels should be placed in such a way that joints between panels do not cover with prefabricated units' joints.

Arrangements of corner walls panels is as following:



**Arrangement of corner walls panels:  
1 – existing wall  
2 – mineral wool panel**

Joints between mineral wool panels bigger than 2 mm are to be filled with cut mineral wool panels' stripes.

**Filling the joints with used mortar is non-allowable due to thermal bonds.**

Glued mineral wool panels must have a plain surface.

#### 4.1. Use of mechanical joints to fix mineral wool panels.

When using mechanical joints, one must remember that only those joints with ITB certificate can be used. Mechanical joints can be used on those walls' surfaces where wall's top layer does not have enough resistance. The way how to check surface resistance has been described in section 2.1 of the Instruction.

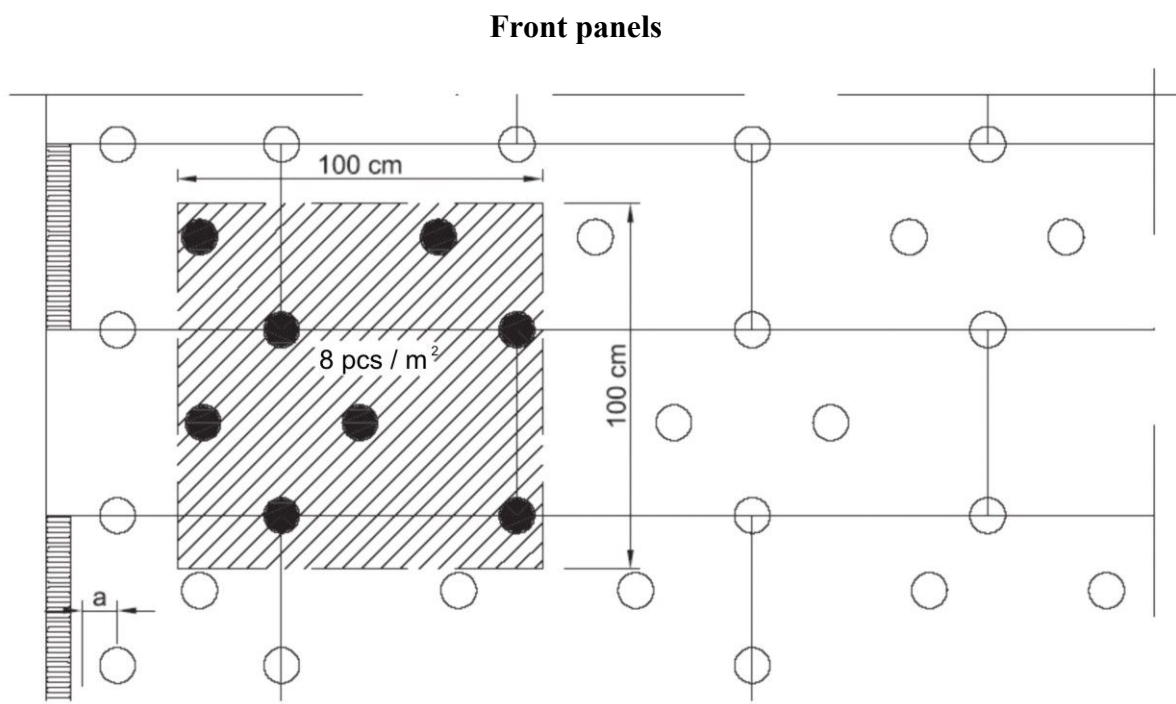
The precise number of joints for one square meter of insulation and their length is defined by a design engineer in a insulation design.

If there is no insulation design:

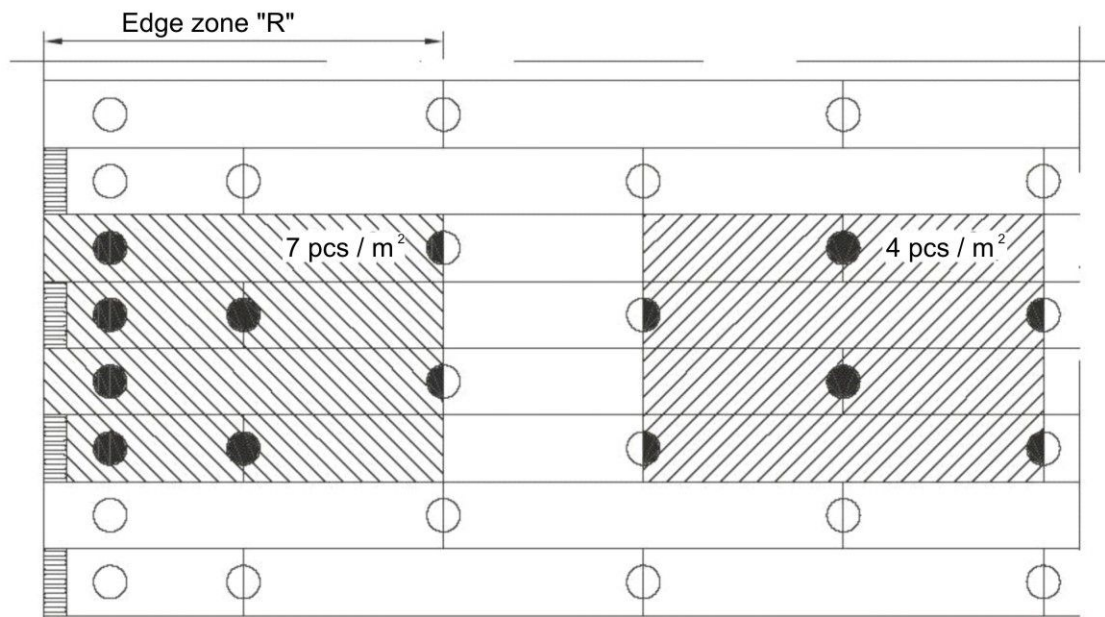
- for lamelaflabes 4 pieces for 1 m<sup>2</sup> of insulated surface
- for lamelaflabes 4-7 pieces for 1 m<sup>2</sup> of insulated surface in edge zone
- for regular panels 4-8 pieces for 1 m<sup>2</sup> of insulated surface.

For lamelflabes joints with a big set flange are used.

Examples of joints distribution:



## Lamelaflabes



For mineral wool panels installation use only mechanical joints with steel mandrel.

For walls higher than 20m use of mechanical joints is obligatory – whether there is good bearing capacity of the ground or not. Even if there is good bearing capacity of the ground, but situated in windy zones or air blast against insulated walls, additional mechanical joints must be installed.

**The mechanical joints can be installed 3 days after gluing the panels.**

It is crucial to define the right joints' length. The basic condition is that the joint (screw anchor) is settled at least 6 mm in the concrete wall or ceramic brick and at least 8 mm in a walls made of cavity bricks, Porotherm hollow brick or gas concrete.

Use of 6cm mineral wool panels, taking in to account the mortar thickness (1cm) and plaster (1,5cm) the joint's length should be at least 15cm.

Insulating walls made of gas concrete the anchor's depth (min 8cm) is based on pulling out the joint from the base in accordance with rules defined in ITB approval certificates. Irrespective of the anchor depth the effectiveness of fastening should be checked. It is done through 4-6 attempts of pulling out in accordance with rules defined in ITB approval certificates.

Screw anchor installation must be performed in a neat way. Screw anchors' heads cannot stick out the mineral wool panels – they must be carefully befit.

The area contact of isolation boards and opening work with windowsills and tin should be sealed with elastic materials e.g. illbruck tapes, silicone gap filling adhesive or impregnated tapes.

It is necessary to seal carefully the area contact because tin work and joinery widen in a different way than plaster. In such places there are abrasion marks, where during rain, water comes in, which as a result causes walls' moistness and lower the insulation effectiveness. In autumn and winter the process of lowering the insulation effectiveness is doubled by cold.

Having done that, mineral wool panels should be cleaned off loose wool fibre, which form during screw anchor installation and process of gluing panels.

### **5. Applying of mortar glues on mineral wool panels and setting of glass fibre net. (realization of reinforced layer).**

The main aims of reinforced layer are protection of mineral wool panels insulation, preparation of a solid and lasting plaster base as well as taking the thermal loads connected with insulation (heating and cooling down). The reinforced layer is done no sooner than 3 days after gluing the mineral wool panels. The layer can be done only in rainless weather and the ambient temperature above  $+5^{\circ}\text{C}$  and no higher than  $+25^{\circ}\text{C}$ .

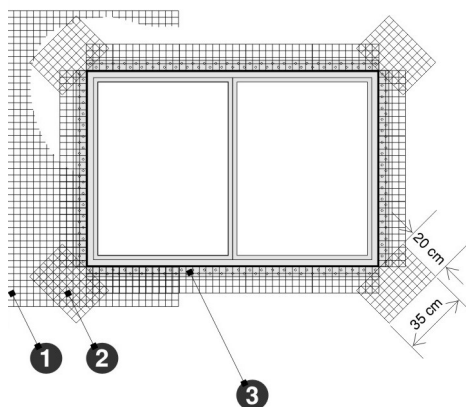
If the mineral wool panels are glued in late autumn, when there is high air humidity and temperature drops may occur it is essential that the panels are covered with reinforced layer and ground layer.

It is unacceptable to glue panels and leave them on the wall unsecured due to water leakage through panels to glue layer.

The reinforced layer should be protected against strong winds due to excessive drying up during bonding. If there is too much sun – but the temperature doesn't exceed  $+25^{\circ}\text{C}$  – the reinforced layer should be protected as well for the same reason.

Before executing reinforced layer work, the following activities should be done on walls:

- settling protective corners with net on building walls' corners, entrance door's corners and balcony door's corners and window's corners.
- strengthening of openings' corners by sticking net (20x35 cm) – stucked at an  $45^{\circ}$  angle. The below drawing presents the proper way of doing this.



- Applying the glass fibre net near windows and doors:**
- 1- glass fibre net (cut to the corner's edges)**
  - 2- pieces of the net, strengthen the openings' corners**
  - 3- the protective corner with the net**

The reinforced layer work should start with walls' corners, openings' jambs and dilatation.

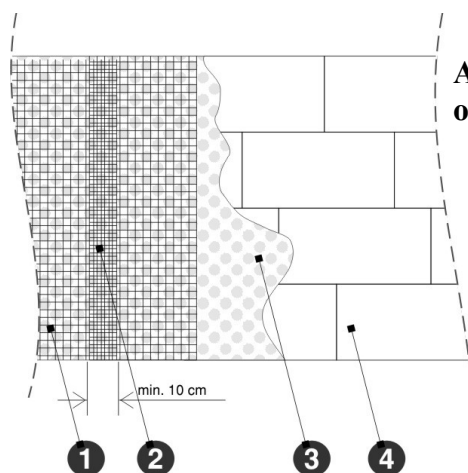
FAST SPECIAL mortar glue is applied on mineral wool panels with a 5-6 mm-thick layer. To apply mortar use long floats (teeth size 10mm). The mortar is applied as a vertical stripes with net's width. After applying of the mortar, the net should be set in a upper part of the wall, lower part of the net should be stretched. Then it should be squeezed from the top on the whole width in order to avoid waves, humps and blubs.

The net should be squeezed carefully in the middle of the mortar's width. Its aim is to take over thermal loads (tensions) which are in a mortar's layer. If the net is settled too deep or too shallow it will cause the net working eccentric not axial. Such working may cause cracks and peeling of reinforced layer (humps). The net must be totally squeezed into the mortar. Net's clearance is unacceptable. In order to cover the net, which has been inaccurately squeezed, settle another 1-2 mm-thick mortar (before bonding the first one).

The layer's thickness when using one layer net should be no less than 5 mm and no more than 6 mm.

Filling the net with a thin layer after a few days will not have any effect due to its drying up. In extreme cases additional 2-3 mm-thick mortar layer can be applied on the, the total thickness of reinforced layer would be 7-9 mm. In such cases the additional layer's adhesiveness must be checked.

During setting the net into the layer, the minimum of 10 cm of horizontal and vertical overlaps must be followed. The rule of waving the net on jambs and window sills and for the vertical walls' corners – in case when protective corners without net are used – swaying the net to the next wall for about 15 cm.



#### **Applying the glass fibre net on walls without openings:**

- 1. glass fibre net**
- 2. net stripes connection**
- 3. FAST SPECIAL/ FAST SPECIAL M mortar glue**
- 4. mineral wool panels**

In case when building walls are exposed to impacts and mechanical damages due to location close pavements, passages, crossings, playgrounds etc. double net should be used on the whole ground-floor walls. After hardening the glue mortar, where the first glass fibre layer was set – the next mortar layer should be applied and the second glass fibre layer should be set. The reinforced layer thickness with the double net should be 8-9 mm.

**Stretching the net on mineral wool panels and covering it with mortar is unacceptable - it threatens the safety and endurance of the whole insulation system.**

The reinforced layer must be filled carefully, because inaccurate performance and inaccurate leveling the surface impact the elevation outlook.

If there are any surface's roughness, notches and sharp refractions of parts of the reinforced layer – roughness must be grinded with glass-paper – otherwise they will be visible on plaster's structure. The grinding can be done provided that the mortar is not too hard.

**Reinforced layer thinner than 5 mm eg 2 or 3mm thick is unacceptable due to faster and excessive drying up of the mortar during the bonding phase and lack of proper endurance of the protective layer.**

### **6.Executing of plasters from plaster mortar.**

Plaster work can begin no sooner than 3 days (in optimum coinditions) after finishing the reinforced layer.

The reinforced layer should be dry (4% of base moisture content). Plaster work should be carried in a temperature no lower than +5°C and no higher than +25°C. The building walls shouldn't be too much sunny – the appropriate temperature should not exceed +25°C.

Recommended walls' temperature is +20°C due to optimum bonding conditions.

In order to lower walls 'temperature and avoid excessive drying up of the plaster shield should be used, the other option is to carry work where there is no direct sunlight.

The following undercoats should be used:

\*FAST GRUNT M - for mineral plasters

\*FAST GRUNT S - for silicate plasters

After grounding - .wait 24 hours and than start plaster work.

**It unacceptable** to perform plaster work when:

- air humidity above 70%
- during rain
- there is heavy wind

One mustn't perform plaster work when it is forecasted that the temperature drops below +5°C in a next 24 hours after applying the plaster.

Having the plaster work finished it must be protected at least one day against rain and excessive drying up.

**On the sunny building walls dark colours shouldn't be used.** It concerns south and south-west walls in particular. On sunny walls the temperature grows and therefore the reinforced layer takes the created thermal stress. The reinforced layer of the sunny wall, where dark colour plasters have been applied, cannot bear the created thermal stress. Due to heavy thermal stress cracks fractures may appear.

The right number of workers and scaffoldings should avoid the visible plane of contact of dried and applied mortars. One plane should be finished in one working cycle, following the main rule “wet on wet”.

Preparing of the mortars and using appropriate tools with accordance to the mortars’ technical manuals.

To avoid aggregate’s classifying (bigger and heavier aggregate goes down the container) the content should be stirred before use.

To provide the same shade of applying mortar, the buckets (3-4) should be stirred in a bigger container. While mortar leavening one should fill and stir it using a drill with a proper mixer.

## **7. Paint coatings**

Silicate or silicone paint coatings are applied on mineral plasters. Pain coating work can start provided that mineral plaster layer is dry.

### **Silicate paints:**

Require use of FAST GRUNT S grounding agent, which levels the base absorption and enhance the paint adhesivness.

The grounding agent cannot be diluted – the agent should be applied on surface with paintbrush or roller. Paint coatings can be done no sooner than 24 hours after grounding. Then paint can be applied twice as a thin layer with paintbrush or roller. The first paint layer can be diluted with FAST GRUNT S max 10%, The second paint layer can be applied only after total drying up of the first layer, no sooner than 6 hours.

**The paint for the second layer cannot be diluted.**

### **Silicone paints**

Are applied on bearing surfaces, free of impurities. In case of low-bearing surfaces before painting the surface should be grounded with FAST GRUNT SIL.

We act similarly in case of fresh cement-lime plasters, concrete etc.

Silicone paints FAST SILIKON should be applied in 1 or 2 layers with paint brush, roller or airless spraying.

The second layer is applied after the first has dried up.

Application of a paint or plaster should be protected against unfavorable weather conditions such as rain, heavy wind or excessive sunlight.

When applying paint or plaster on southern or south-western walls work should be done during time when there is no direct sunlight to the walls.

In order to avoid uneven dry up of paint coating or plasters during sunny months net shield for scaffoldings must be used. They can be taken off after total dry up of the wall.

The work should be carried in temperatures +5°C - +25°C , work during rain or possible rain should be avoided.

The reparation of the paint coating or thin-coat plasters is extremely difficult and the effect of proper execution of work is never achieved.

**In order to eliminate shade difference always use material from the same manufactured unit for one layer (the same serial number).**