



**Garage system
instruction**

-- 2006 --

The ceiling insulation system has a Technical Approval ITB AT-15-6141/2005.

The system is a layers' structure which consists of:

- lamelaflabs,
- reinforced layer made of glue mortars, glass fibre net,
- paint protective layer

In the FAST W-G system lamelaflabs are glued to the base of insulated ceiling with a glue mortar. Additional fixing of the plates with mechanical joints (screw anchors) is necessary. The number of the joints, kind, its length should be defined by design engineer for individual case.

The number, kind and joints' length depend on:

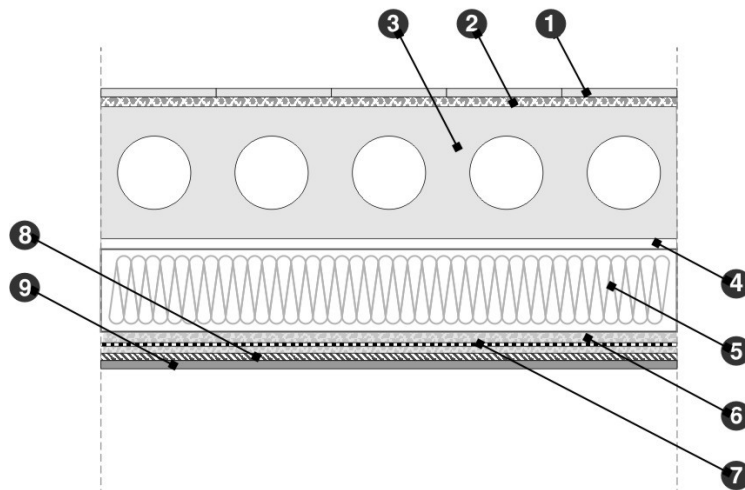
- the kind of base and its condition,
- mineral wool thickness
- guiding principles of technical project.

System has been classified as:

- no spreading fire
- no dripping
- no coming off under fire

The FAST W-G system consists of the following materials:

- Mortar glue FAST NORMAL W to fix mineral wool panels to the insulated ceiling
- Mortar glue FAST SPECIAL W to fix mineral wool panels to the insulated ceiling (used exchangeable with FAST NORMAL W) and to execute reinforced layer made of glass fibre net on mineral wool panels
- Mechanical joints
- Glass fibre net VERTEX 145A/ AKE 145 by AT-15-3833/2005
- Grounding agents
 - FAST GRUNT S
 - FAST GRUNT SIL
- Paints:
 - FAST F-S silicate
 - FAST SILIKON silicone
 - FAST SI-SI oxosilane
 - FAST F-AZ acrylic
- And supplementary elements i.e. slats, corners, sealing materials etc.



The profile of a garage insulation using FAST W-G in no-insulated garage

1. terracotta
2. glue for tiles
3. ceiling
4. FAST NORMAL W glue mortar
5. minerla wool
6. FAST SPECIAL W glue mortar
7. glass fibre net
8. FAST GRUNT S/ FAST GRUNT Sil grounding agents for paints
9. paint coating: FAST F-S silicate/ FAST SILIKON silicone/ FAST SI-SI oxosilane/ FAST F-AZ acrylic

FAST W-G insulation system can be applied to insulate floors from ceiling side in newly raised buildings as well as existing ones.

FAST W-G is used for ceiling insulation of:

- large parking places
- multi leveled garages
- industry halls, with dwellings above, business premises and other rooms which require higher temperatures

FAST W-G can be used in open as well as close rooms – the used paint depends on finish quality and design's recommendations.

It is crucial to keep "edge zone" in FAST W-G system, it is located near garage entrance and leave.

The edge zone should be 10m wide and about 3-4 m on both entrance sides. It should be finished with plaster or two paint coatings.

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

- technical documentation for a given object, defining preparation of base, lamella's thickness, kind, quantity and distribution of mechanical joints, finishing of special places such as binders, poles, dilatation and installations' transition.
- the given detailed instruction of insulation,
- decisions of Technical Approval ITB AT-15-6141/2005,
- valid Polish Norms and regulations.

Construction work, connected with applying of FAST W-G insulation systems should be executed by specialised companies with a certificate, which guarantees proper quality of executed insulation work.

Materials used for FAST W-G system 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 damages.

The layers of FAST W-G 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 ceilings 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,
- grounding agent provides absorption unification and improves paint coatings' adhesiveness
- proper selection of colouring and surface quality and contributes to aesthetical appearance of a ceiling – in order to secure insulation structure properly it is advised to apply paints in two layers with 6 hours break.

Details concerning layers' thickness, way of preparation, setting the glass fibre net and technological breaks during insulation process are tantamount to execution of mineral wool insulation on external walls and have been described in the insulation instruction.