Expanded polystyrene decorative elements for trim of buildings

#### TENAPORS DECOR

### ASSEMBLY INSTRUCTIONS

#### Materials and instruments

Trowel, rubber spatula, marker, knife, saw, finishing paint, adhesive or assembly foam intended for polystyrene insulation, sealant, straightedge, marking line with chalk powder, hammer, measuring tape, drill, sandpaper, level gauge, screws, pins, dowels, anchors, finishing compound, water-based paint intended for facade finishing.

# **Preparation of surface**

The surface on which the decorative element will be fixed must be dry, smooth, flat and clean from dust and dirt.

#### **Climatic conditions**

The assembly of decorative elements shall be carried out under dry conditions, when temperature is not below 5 °C.

If the air temperature is higher than 20 °C, the assembly shall not be carried out in direct sunlight.

Assembly shall not be carried out during the rain or strong wind.

# Marking before assembly

Clearly and exactly mark the place on the structure of the building where the element shall be assembled.

# **Cutting**

Cut the decorative element into the required length and/or angle by using the saw or other cutting tool, which allows to obtain a smooth, uniform cut.

To obtain an accurate size and shape of the element it is recommended to finish the cut surfaces with the sandpaper.

### **Assembly methods**

Decorative elements are assembled either by using only adhesive, or by using both the adhesive and mechanical fixings.

The mounting procedure should be chosen considering the weight of the decorative element, supporting area and evaluating the actions caused by wind, snow, other external loads and the element itself.

In all cases when the strength of adhesive bond due to the imposed loads is under doubt it s is recommended to use the adhesive and mechanical fasteners simultaneously.

### Fixing with adhesive

The fixing with the adhesive only is recommended for the assembly of decorative elements with a thickness less than 100 mm and / or height less than 200 mm.

For the fixing of the decorative elements the cementitious adhesive or the assembly foam intended for EPS thermal insulation can be used.

Manufacturer's instructions for the use of adhesive or assembly foam shall be followed.

Apply adhesive layer on the rare (supporting) side of the decorative element by using a trowel.

Use the trowel to remove the excess of adhesive and to obtain the adhesive layer with thickness 10 mm and adhesive perimeter distance from the edges of the decorative element 20 mm.

If the assembly foam is chosen, spray the surface of the decorative element with water before the foam is applied.

Apply the assembly foam to the rear (support) side of the decorative element to obtain the foam layer with thickness 20 mm and foam perimeter distance from the edges of the decorative element 20 mm.

After the adhesive or foam has been applied, press the decorative element to the surface of the building structure accurately in the marked position.

Elements should be pressed with moderate load until the adhesive or assembly foam builds up the adhesive bond with both surfaces.

When the elements are assembled continuously, apply the adhesive or assembly foam on the lateral faces of the elements as well.

Connect the decorative elements so that the joint width between the elements is in the range from 1 mm to 2 mm.

When the elements have been fixed, the surface of the adhesive or assembly foam between the elements shall be approximately 2 mm in depth from the outer surface of the elements, so that after the drying time of the adhesive joint it can be finished with the decorative coating.

If necessary, remove the excess of adhesive or assembly foam by using the rubber spatula.

#### Fixing with adhesive and mechanical fasteners

The fixing with adhesive and mechanical fasteners simultaneously is used to assemble the decorative elements with a thickness greater than 100 mm and / or height exceeding 200 mm.

In general, screws or different types of anchors together with the relevant accessories (dowels, pins, etc.) are used.

When the elements are fixed with screws, following procedure should be used.

1) Fasten 3 pins or anchors per every 2 m of length in the structure of the building.

The fasteners at the lateral sides of the decorative elements shall be 100 mm from the edge of the element.

Free end of the dowel or pin shall be shorter than the thickness of the decorative element.

Then proceed in the same way as described for the fixing with adhesive only.

Apply the adhesive on the decorative element, position the element on the dowels or pins and push it until the element is in contact with the structure of the building.

2) When the decorative element has been bonded to the building structure, use additionally the appropriate number of screws for better fixing.

The head of the screw shall be sunk in the decorative element 2 mm below the surface of the element.

It is recommended to connect decorative elements with each other by using appropriate anchors.

# **Trimming of columns**

Decorative elements for the column trimming consisting of 2 segments are closed around the column and bonded together by using the cementitious adhesive or assembly foam intended for polystyrene insulation.

If the element for the column trimming has to be fixed to the wall then the assembly shall be carried out in accordance with the instructions given above.

### **Sealing of joints**

The joints between the decorative elements and the surface of the building structure have to be sealed to prevent the moisture ingress into the joints.

The sealed joints shall have enough space to mask the joints with with surface finishing.

# **Surface finishing**

Before the application of the surface finishing all fixed decorative elements have to be dry.

Consider the longest drying time given in the technical specification of the adhesive, assembly foam and sealant.

Finishing works shall not be performed in the case of the moist building structure.

Between the decorative elements, the decorative elements and the building structures, as well as the heads for the fixings, the same coating as for the chosen decorative element has to be applied (polyacrylate coating or acrylate glue with quartz (silica) sand coverage).

When assessing the appearance of the facade in general, the joints and fixings of decorative elements should not be visible.

Paint the decorative elements with water-based paints intended for facade finishing (e.g., Caparol Disbocret 518 Flex-Finish) 3 - 4 weeks after assembly, following the paint manufacturer's instructions.

It is not recommended to paint the decorative elements in dark colours.

# **STORAGE**

Store the elements on their flat surface, supported by flat support surface, in dry places, in temperature which must not exceed 70 °C.

Long-term storage of the product on curved surfaces or in a vertical position may cause deformation of the element.

Nothing should be stacked on top of the products, also packaged products should not be stacked one on the other.

Contact of the product with the solvents is not permitted.

Keep away from children!

### **LEGAL NOTES**

The information given above about the TENAPORS products, is based on TENAPORS current knowledge and experience.

The information remains valid only as long as the product is stored, handled and applied in accordance with manufacturer's recommendations.

TENAPORS reserves the right to change the properties of its products.

In all cases the most recent version of product description applies.

To get additional information on TENAPORS products, please contact TEANPORS sales manager.