

AVAL Insulated External Render System

Estimate was based on polish labour and materials norms KNR nr 0-23 0931-01 and our experience. As a sample we estimated the cheapest version of elevation done with mineral render, dotted finish 1.5mm thick. We can also suggest using smooth external render based on white cement. It will give a very nice white finish. It's also possible to renovate old render with this method.

Estimation conditions:

- materials are delivered on site
- internal transport horizontal and vertical is included in the average building situation
- labour includes fitting light scaffolding up to 4m high
- calculation of materials includes an allowance for waste
- water, electricity, sand paper and other small materials are added with 1,5% rate calculated form basic materials

Sequece of operation:

- clean and prime the surface
- fix base edge strip according to thickness of polystyrene panels
- mix the adhesive
- cut and fix polystyrene panels to the wall
- drill holes and fix plastic plugs
- prepare polystyrene joints with special tool to make an even surface
- glue one layer of glass fibre mesh
- fix aluminium strip with glass fibre mesh to external corners
- apply adhesive base coat
- prepare render from dry powder or ready mixed ones: acrylic, silicone etc.
- apply render with steel trowel
- work wet render with plastic trowel to receive decorative finish
- cover with dust sheet to protect against rain and sun

Coverage of materials for making 1m2 top coat acrylic render with insulation; system insulated with graphite polystyrene panels 5cm thick

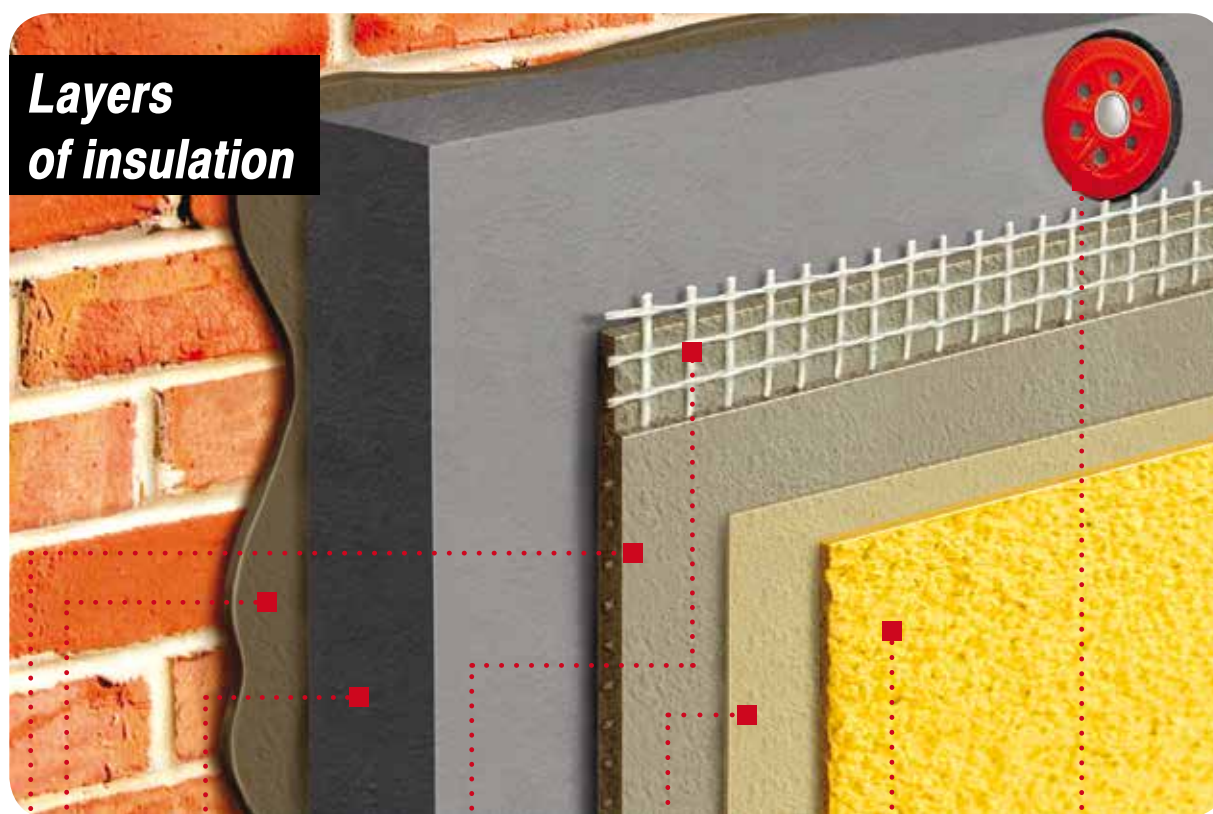
| No | Material | Unit | Price* excl VAT [pcs] | Norm for 1m ² wall | Unit price excl. VAT [GBP] | Price excl. VAT for 1m ² wall | Price incl. VAT for 1m ² wall |
|--------------|--|------------------------|-----------------------|-------------------------------|----------------------------|--|--|
| 1 | Primer AVAL KT 17 | can 5l | 11.25 | 0.07l/m ² | 2.25 £/l | £ 0.16 | £ 0.19 |
| 2 | Metal track 53/2500mm | pcs | £ 4.58 | TBC | 1.28 £/m | - | - |
| 3 | Foamed polystyrene EPS 70-032 FACADE 50mm thick | 1m ² | £ 4.13 | 1.05m ² | 4.13 £/m ² | £ 4.34 | £ 5.21 |
| 4 | Fix polystyrene panels using £l-10x90mm plugs | pcs | £ 0.17 | 6 szt/m ² | 0.17 £/szt | £ 1.02 | £ 1.22 |
| 5 | PVC corner with mesh 2.50m | pcs | £ 2.33 | TBC | 0.27 £/m | - | - |
| 6 | AVAL KT 55 adhesive for glueing polystyrene panels and fibreglass mesh | bag 25 kg | £ 12.25 | 8.0kg/m ² | 0.49 £/kg | £ 3.92 | £ 4.70 |
| 7 | Fibreglass mesh 155g/m2 | roll 50 m ² | £ 47.50 | 1.135m2/m ² | 0.95 £/m ² | £ 1.08 | £ 1.30 |
| 8 | AVAL KT 16 contact primer | bucket 25kg | £ 57.50 | 0.25kg/m ² | 2.30 £/kg | £ 0.58 | £ 0.70 |
| 9 | AVAL KT 60 acrylic top coat render dotted 1.5mm | bucket 25kg | £ 37.50 | ca 3.0kg/m ² | 1.50 £/kg | £ 4.50 | £ 5.40 |
| 10 | Additional materials 1,5% | | | | | £ 0.23 | £ 0.28 |
| Total | | | | | | £ 15.83 | £ 19.00* |

* materials available at above Retail Prices at IBB Polish Building Wholesale Ltd, London – before discounts

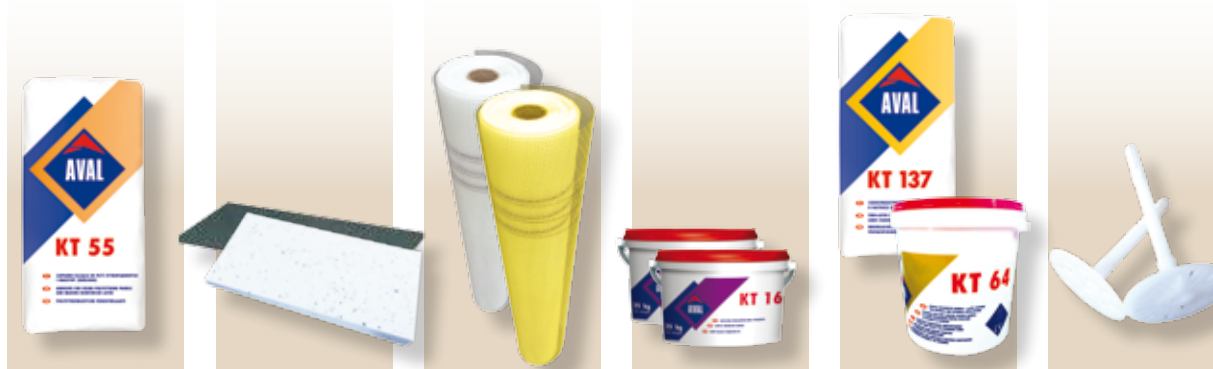
Expenditure of labour for making 1sqm elevation like above

| No | Discription | Labour hours | Rate excl.VAT [GBP] | Rate [GBP] per 1sqm excl.VAT | Rate [GBP] per 1sqm incl.VAT |
|--------------|---|-------------------------------|---------------------|------------------------------|------------------------------|
| 1 | Priming substrate and base coat surface before applying top cost render | 0.066 labour/m ² * | £ 14,- | £ 0.92 | £ 1.10 |
| 2 | Fixing metal track | 0.237 l/m | £ 14,- | - | - |
| 3 | Glueing polystyrene panels | 1.329 l/m ² * | £ 14,- | £ 18.61 | £ 22.33 |
| 4 | Fixing corners with mesh | 0.220 l/m | £ 14,- | - | - |
| 5 | Coating mesh with adhesive | 0.611 l/m ² * | £ 14,- | £ 8.55 | £ 10.26 |
| 6 | Applying top coat render | 0.493 l/m ² * | £ 14,- | £ 6.90 | £ 8.28 |
| Total | | 2.606 l/m²* | | £ 34.98 | £ 41.97 |

Attention: in our quotation we have only described positions marked *, the rest you have to calculate individually eg. fixing corners with mesh according to how many reveals there are on the elevation, it is also important that for reveals you have to increase the quotation, the same for scaffolding or colour render.



■ Adhesive ■ Polystyrene panel ■ Mesh ■ Primer ■ Render ■ Plug



Important information regarding building elevation:

- while choosing metal edge strip, please mind that both thickness of polystyrene panels and thickness of adhesive are important
- apply adhesive around the edge of polystyrene panel and in the middle
- fix plugs only in the area where the adhesive is applied
- attention: it is not necessary to fix polystyrene panels with plugs when the elevation is a small area. Adhesive only will do the job
- in the UK you should cover the fixing screws with polystyrene plugs to protect against the cold bridge
- when preparing insulation surface, an adhesive layer, etc. should be done carefully and evenly; the adhesive surface should not be sanded – otherwise it is difficult to apply the render and get a good finish
- the thickness of one coat is only the thickness of the grain used in the render – you can not level the surface by just applying another layer of render
- the surface area of one level elevation should be done continuously from one side to the another without a break, by two people – one for applying the render and second one for making the decorative finish. If you allow part of a surface to dry before continuing it will leave ripples on the surface
- do not apply render during rain or bright sunshine
- if some render drops from the elevation during application – do not re-use it
- you can check the skills and experience of your builders by looking under the scaffolding for fallen render
- you can use a pre-coloured render but remember - if you use an acrylic external paint always wait 28 days
- you can paint after 24 hours but you must use a silicat external paint
- if you use a coloured render make sure it is an acrylic one
- for insulating polystyrene panels you can use 2-3 cm thickness but there is no matching edge metal strip to be found
- you can apply thin layer render on to old cement based render – but cleaning, priming and applying fiberglass mesh with adhesive is a must
- in some situations it is necessary to fit insulated rendering system with special buttons
- new render finishes should be protected against weather, especially rain, by using plastic sheeting – repairing damaged render can only be done by applying a new a layer of adhesive with mesh and new decorative render

Useful tools

**Trowel
with sandplate**

£4.58*



**Plastic trowel
for decorative render**

£3.40*



**Scraper
for old renders**

£13.75*

** Prices incl. VAT before discount*

**Attention!**

Our norms and rates should be taken as a guide only and there are no obligations for anybody to adhere to them.; you have to take sole responsibility and apply your own rates to your quotations. Cost of materials can vary from prices shown on the manufacturers specification We cannot accept any responsibility for anyone using this information - you must make your own checks.