

Real Stone Cladding

stone cladding system

Stone Cladding System Catalogue 2015



STONE CLADDING SYSTEM

Rustic yet elegant natural stone
facade suitable for exterior
and interior use, at a fraction
of cost of traditional walling



Easy to install, durable and maintenance free,
available in a range of colours



Specially designed interlocking system creates a convincing look: elements fit seamlessly as do corners. All edges are hand-dressed





residential and commercial
new build or renovation





any construction method



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Why use stone panel system?

natural

stone panels are made from natural stone only and are laid out as a dry-stone wall. All panels interlock together on both straight walls as well as at corners.

economical

speed and simplicity of installation provide significant savings on labour. Minimal waste is a cost saving factor as well.

prestigious

in both renovation or new construction projects, natural stone finish gives an instant edge and irresistible kerb appeal, also resulting in higher property value.

simple

as opposed to random rubble walling, installation is easy and does not require specialist knowledge and skills. One person can fit 30 square metres in a day using stone panels, whereas only 3 square metres of random rubble can be fitted in the same time.

clean

stone panels do not require any maintenance. However, water-repellent sealers can be used to keep the water and moisture away from the stone surface. Contact us for details.

tested

tested for reaction to fire, fire class, thermal shock, freeze-thaw, impact resistance and tensile strength - all for additional peace of mind

Colours - core range

These are standard panels, usually available ex-stock for immediate dispatch. Our panels are unique, as all pieces are dressed on vertical edges. Corners are also hand dressed rather than sawn.



rustic
gneiss

black
slate



rustic
quartz

golden
quartz



Colours - core range continued

green slate



blue
stone

Colours - extended range

These are additional panels, usually available on a lead time.

rustic
limestone



nordic

Colours - extended range continued

'yorkstone'



grey
granite

red
sandstone



multi
colour

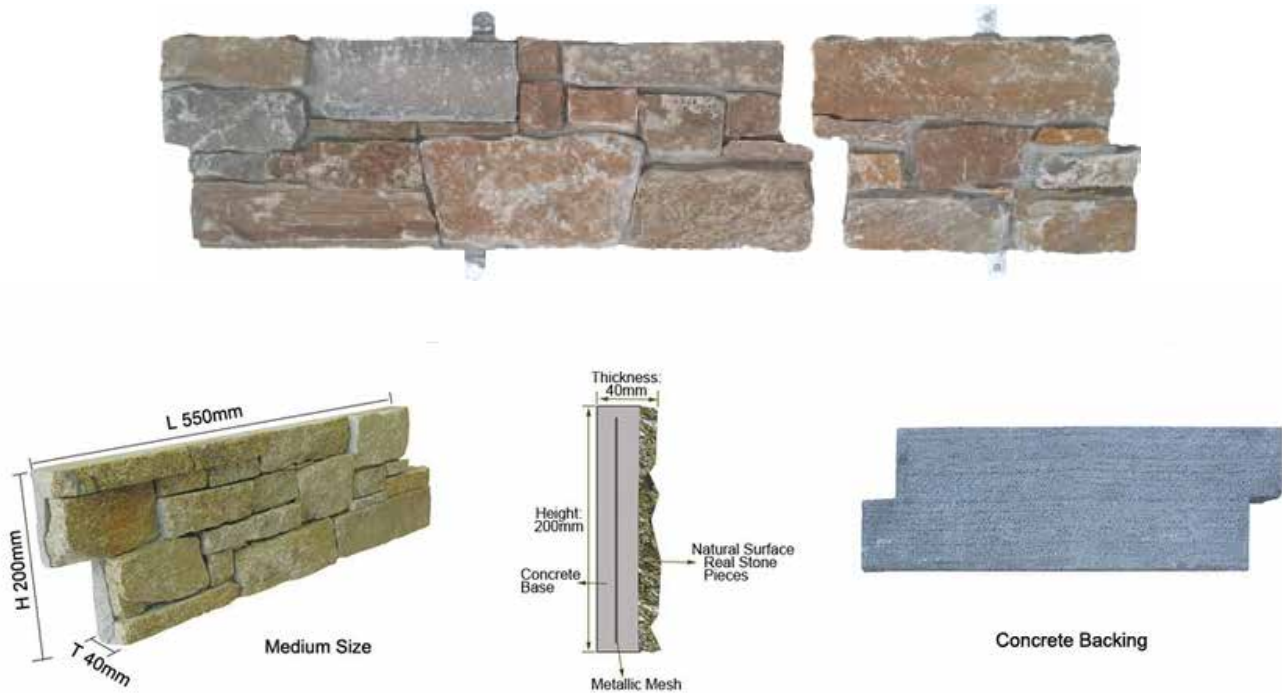
multi colour
thin



SYSTEM ELEMENTS

STONE PANELS

Panels are supplied in boxes which contain 2no long pieces (60 x 20 x 3-4 cm) and 2no short pieces (30 x 20 x 3-4 cm). All vertical edges on all panels are DRESSED. All panels come with fixing clips top and bottom. Large corner pieces (45 + 20) x 20 x 3-4 cm, also known as quoins, are also available.



ADHESIVE



Specially formulated flexible adhesive to C2TE or C2TE S1 standard, which is both frost and water resistant, non-slip with extended open time.

MECHANICAL FIXINGS

At heights over 2m stone panel system must be additionally fixed using secondary mechanical fixing. Panels should be screwed to the substrate using stainless steel or galvanised screws, via the hole in the integrated fixing clip.



BASE PROFILES

Under the first course of the stone, as well as over window and door openings, a galvanised or stainless steel angle should be fitted in order to support the panels.

CORNERS



interlocking corners



quoin corners



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FITTING INSTRUCTIONS

1. PREPARATION

Surfaces should be clean, dry and free of all loose elements. Ensure that you have sufficient number of panels to cover the area you need to clad (this is best checked before ordering). 10% extra is recommended for wastage and cutting.

To calculate the amount of panels required, check the height and length of the wall and multiply these two. This will give the square metre area to be covered. Take the same measurements for all the walls, and this will give the total square area for the job. The number of external corners can simply be measured by taking off linear metres of corners. It is a good practice to cover any horizontal cuts beneath ground level. If the base layer is over ground level, then the horizontal cut should be left for under the eaves area. Timber batten (temporary fixing) or aluminium or steel angle (permanent fixing) should be fitted as base. It should be level as the look of entire wall will depend on the first row of panels being level. Additionally, first course of panels can be additionally screwed to the wall using integrated fixing clips.

2. MATERIALS AND TOOLS

a) adhesive - specially formulated flexible adhesive to C2TE or C2TE S1 standard, which is both frost and water resistant, non-slip with extended open time. It should be used according to manufacturer's instructions;

b) rubber mallet - very useful fitting tool as it allows positioning of the panels and ensures tight fit which keeps rows level and joints clean;

c) angle grinder or wet tile saw - they are used to cut the panels; wet tile saw should have a cutting depth of at least 40 mm. Angle grinder should be fitted with 230 mm diamond disc.

d) other useful tools include tape measure, spirit level, notched trowel. Drill and drill driver are necessary if fixing clips are used.

3. INSTALLATION GUIDELINES

Adhesive must be applied to both wall and panel leaving no gaps and air pockets. It is a good practice to use small notched trowel. Dot and dab method must not be used in any circumstances as it leaves air pockets. There must be no gaps left without adhesive between the panels. Joints should be kept free from excess adhesive. The use of a rubber mallet allows ensuring tight fit between panels, and ensuring the panels are fully bedded.

4. CORNERS AND WALLING

After setting out the base, the installation should always start at a corner. Interlocking corners or quoins can be used.

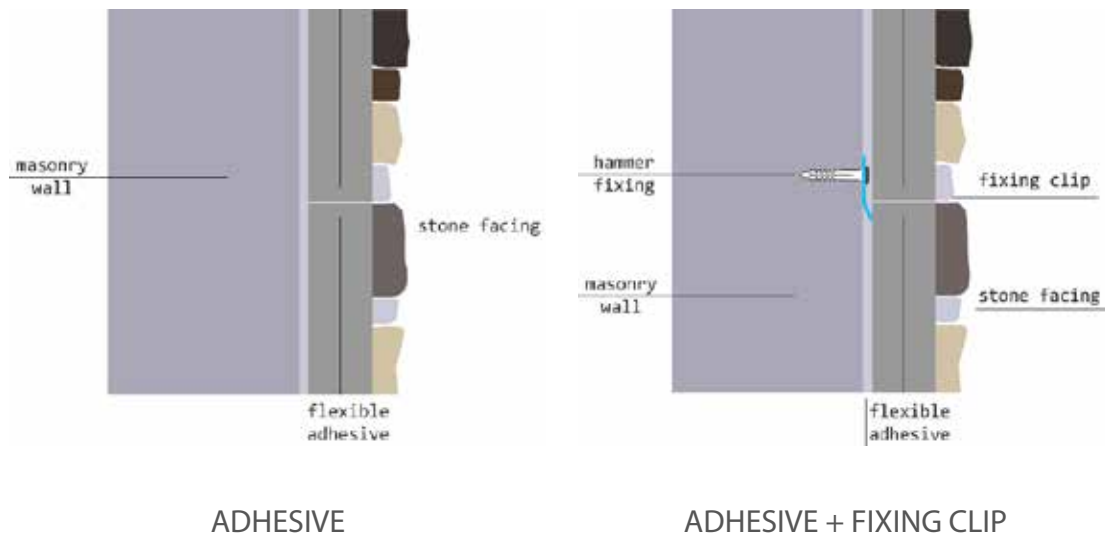
5. FIXINGS

Use them where required, i.e. during installation at 2.0 metres high or over. Stainless steel hammer fixings should be used on masonry walls, and proprietary screws on timber / cement board surfaces. Mechanical fixings can also be used at heights below 2.0m, which is also recommended.

6. EXPANSION JOINTS

Larger walls should be divided into smaller areas at a maximum of 6 x 6 m. Expansion joints allow the cladding to contract and expand, without causing damaging pressure.

MASONRY BLOCK OR BRICK WALL FIXING DETAILS

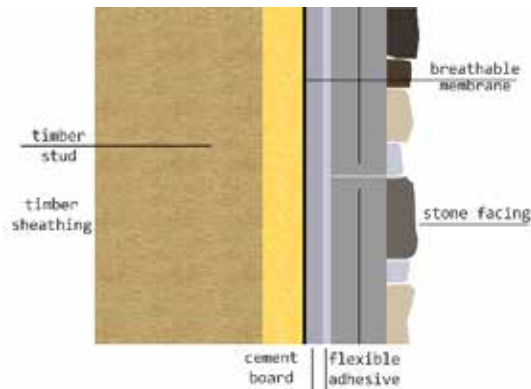


1. It is the most straightforward installation method. Panels are fitted directly onto the masonry wall using adhesive. The wall can be made of concrete block, brick or any other solid or cavity wall masonry wall.
2. The wall should be clean, dry and even (free of any elements, such as dust or lumps of mortar). It can be primed for better adhesion with acrylic primers.
3. Installation of stone panels over 2 metre height requires secondary mechanical fixings. In the case of masonry wall, this should be proprietary hammer fixings with plastic plugs.

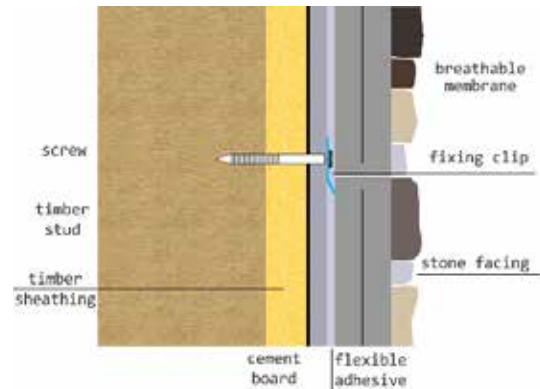
1. brickwork or blockwork masonry wall
2. flexible adhesive
3. stone panels



TIMBER OR STEEL FRAMED WALL FIXING DETAILS



ADHESIVE

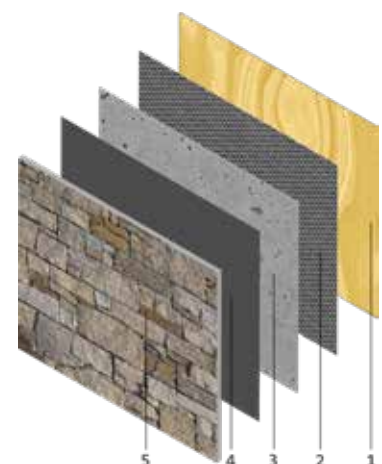


ADHESIVE + FIXING CLIP

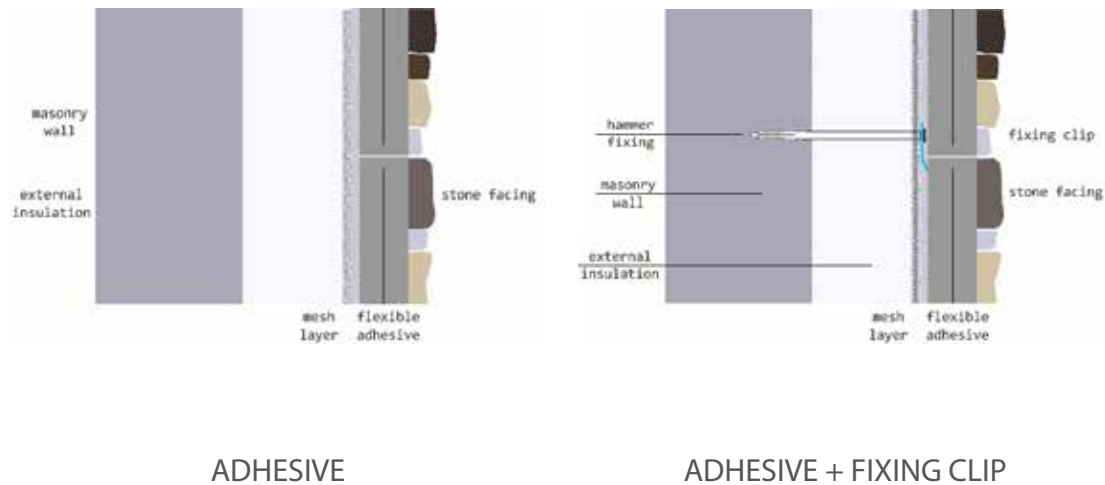
1. Timber wall installation requires a stable base for the panels to be fitted onto. This can be best achieved by use of a cement board on timber battens. The cement board provides the fitting surface for stone, and its spacing from the timber sheathing provides ventilation. Cement board should be screwed directly into timber battens.
2. Cement board provides the final surface on which the panels are fitted. Cement board should be 12 or 15 mm thick - please consult your structural engineer. At this stage, fitting should proceed in the same way as on masonry wall, with or without mechanical fixings.
3. Installation with mechanical fixings requires proprietary stainless steel or galvanised screws that will go through cement board and penetrate into wood material, in this case sheathing timber.
4. Similar method of fixing applies to steel frame construction (steel studs instead of timber studs).

Please note that in timber frame construction the external leaf can be built in blockwork. In such instance the installation of panels should proceed in the same manner as masonry wall installation.

1. timber wall lined with sheathing material, such as OSB or plywood
2. breatheable membrane
3. cement board on timber battens fixed to timber frame construction
4. flexible adhesive
5. stone panels



EXTERNALLY INSULATED WALL & INSULATED CONCRETE FORMWORK (ICF) FIXING DETAILS



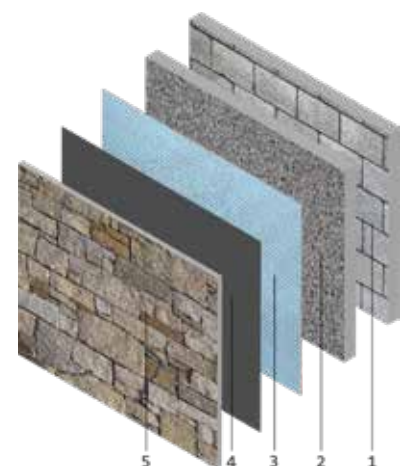
1. External insulation should be fitted as per manufacturer's instructions. There is a variety of insulation options available. Insulation boards are usually fixed using both proprietary insulation adhesive as well as mechanical fixings. The number of fixings is determined by the wall type, thickness of insulation boards as well as the weight of cladding material. Please seek advice of a qualified engineer on a case by case basis.

2. Mesh layer consists of 2 layers of mesh adhesive. First layer goes directly on insulation board and the mesh is embedded into this layer. Second layer is applied once the first layer has dried, typically after 24 hours. Mesh layer function is to reinforce the adhesive, thus giving the system the ability to withstand shocks and movements due to temperature fluctuations or shrinkage.

3. Mesh layer provides the final surface on which the stone cladding is fitted. At this stage, fitting should proceed in the same way as on masonry wall, with or without mechanical fixings.

4. It is of paramount importance that fixings extend right through the insulation material, and penetrate 60 mm into the masonry wall. For example, for 100 mm external insulation with mesh layer, about 170 mm long fixing screws should be used.

1. masonry wall, usually solid wall construction
2. rigid external insulation such as PIR, XPS or Neopor fixed to masonry wall, usually using adhesive and insulation anchors
3. mesh layer consisting of plastic or metal mesh glued to insulation and covered with mesh adhesive
4. flexible adhesive
5. stone panels



FREQUENTLY ASKED QUESTIONS

CAN THESE STONE CLADDING PANELS BE INSTALLED BOTH EXTERNALLY AND INTERNALLY?

Yes. They are mainly designed for exterior use, however can also be used on internal solid walls. Internally, they are generally not suitable for use on stud wall, unless they are fixed onto MgO or cement board. The panels were tested for thermal shock to ETAG 004:2013 and no damage was detected. They were also tested for frost damage and freeze-thaw according to ETAG 004:2013 and no damage was detected either.

ARE ALL THE PANELS DIFFERENT?

The panels are of the same design and size: 600 mm wide by 200 mm high and 300 mm wide by 200 mm high. The thickness is 35 - 40 mm at the stone face. All panels come with fixing clips to the top and bottom, and all vertical edges are hand dressed which provides much neater and seamless finish. Weight of the panels is approximately 75 - 80 kilograms per square metre depending on the type of stone. They are different in colour and the individual pieces making up a panel also vary.

ARE THE PANELS DIFFICULT TO INSTALL?

Not at all. They can be installed even by a DIYer.

WHAT SURFACES CAN IT BE INSTALLED ONTO?

They can be installed mainly on block work, and also on timber frame as well as insulated concrete formwork. Each application has its own surface preparation. Please contact us for details.

DO THEY REQUIRE ANY SEALING OR MAINTENANCE?

No, they do not. They are virtually maintenance free and do not require sealing. However, sealing will do no harm, and can improve the resistance to contaminants, organic growth or elements. We also supply water-repellent nano sealers which do not affect the colour of stone, and sealers that create wet-look effect. Nano sealers must not be used until the installation is complete, including cleaning. Our sealers are extremely water repellent and may cause adhesion problems when used on panels still to be installed.

ARE THEY SUITABLE FOR WET AREAS? ARE THEY RESISTANT TO HEAT?

Yes, as a natural stone product they are. Please make sure you use correct adhesive. The panels were tested for fire resistance and reaction to fire to EN 13823:2010, EN 11925-2:2010+AC:2011 and EN 13501-1 - they were classed as fire class A1 and non-combustible.

WHAT IS THE BEST WAY TO CUT THEM?

For dust-free wet cutting, use a wet tile saw. Angle grinder is the second best option as it creates dust. Please remember to use dust mask and glasses.

DO THESE PANELS REQUIRE ANY MECHANICAL FIXINGS?

Yes, they require secondary mechanical fixings at heights over 2 metres. The panels come with integrated fixing clips, all you need is appropriate bolts, screws or hammer fixings with plastic plugs depending on the surface the panels are getting fixed to, and they should be approved by a qualified structural engineer. Any fixings should be made of stainless or galvanised steel. Please contact us for advice if you are unsure.

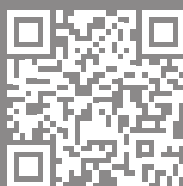
If you have any questions, please do not hesitate to get in touch with us.

USEFUL INFORMATION

We also do brick cladding system, which works brilliantly in conjunction with stone cladding system.



stone cladding system **catalogue**



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