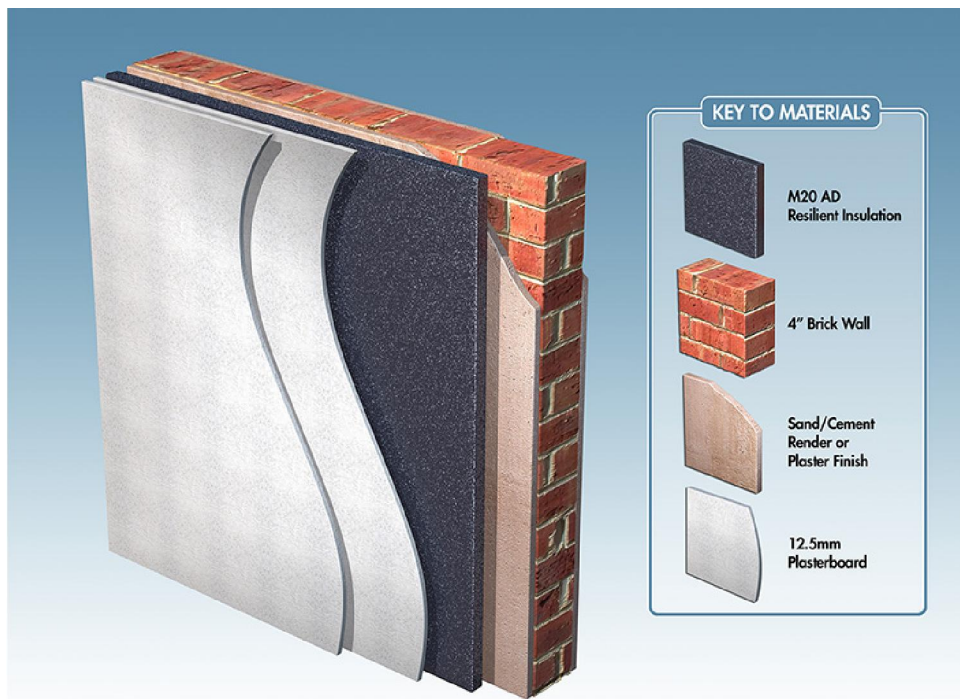


Soundproofing a wall instructions with M20AD

BE SURE TO READ THESE INSTRUCTIONS THOROUGHLY BEFORE COMMENCING ANY WORK

NOTE. THESE INSTRUCTIONS MUST BE FOLLOWED OTHERWISE INCORRECT INSTALLATION COULD OCCUR WHICH MAY HAVE A DETRIMENTAL EFFECT ON THE PERFORMANCE!



Preparation

Before installing any soundproofing onto walls, flanking noise skirting around the sound insulation can reduce effectiveness so to obtain the best result, it is advised the void between the joists in timber suspended floors is filled with AMW type Acoustic Mineral Wool immediately adjacent to the party wall. In addition, the floor overlaid with a double layer of 2mm SBM5 Soundproofing Mat. The ceiling above should also have AMW in the void or if a loft, then the required amount of fibreglass thermal insulation. In all cases, the ceiling should have an additional layer of high density Acoustic Plasterboard screwed up with 1mm SoundBlocker Membrane sandwiched between the layers.

EST. 1969

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Now ensure the wall to be treated does not have any holes that may allow sound and noise through. The most likely places these occur is where the flooring and ceiling joists join the wall so if the joists are mounted into the wall and there are any gaps evident, the masonry around the joists should be sealed with our acoustic sealant to ensure the wall is airtight.

Secondly, if the wall to be soundproofed is directly beneath a loft, such as a bedroom or a wall in a bungalow, the loft will have to be checked to ensure the party wall continues through to the roof. If this is not the case, for maximum soundproofing performance, the wall will have to be built up to the underside of the roof with bricks laid frogs up to ensure maximum density, or alternatively, high density concrete blocks.

To reduce leakage of airborne noise, care should be taken to ensure an airtight seal exists where the wall meets the roof and this can be helped by using our acoustic sealant. Further improvements can be gained by infilling between the joists with acoustic mineral wool and boarding out the loft with 22mm tongued and grooved flooring grade chipboard or the higher density QuietBoard acoustic flooring.

Ensure the wall to be treated has a dry, clean and sound surface. Fireplaces should be bricked up and plaster skimmed ready for application of the sound insulation. Wallpaper is best removed along with any loose and flaking paint and the surface of the wall must be perfectly flat. If the wall is uneven, it is not recommended the sound insulation is applied until the wall has been suitably prepared. This may involve plaster skimming until the surface is flat enough to begin treatment. New plaster must be completely dry and any protrusions levelled off before bonding the insulation. It is often advisable to prepare the wall with a dilute EvoBond or a PVA solution before applying the panels. This is especially important if the substrate is new plasterboard which is often porous.

Skirting boards, light fittings and power points have to be removed prior to applying the insulation. (We advise that a qualified electrician should carry out any work involving the removal and refitting of any electrical fittings). Before starting any work on electrical fittings, ensure the power is first turned off. When removing light switches and sockets, check there are no holes penetrating the wall behind each fitting. Where any are found, they must be sealed with either cement or acoustic sealant depending on the size of the hole. To facilitate refitting electrical fittings to the new surface after treatment, cut out a hole in the two layers of plasterboard in which the electrical fitting is to be fixed then glue the metal box of the fitting into the hole with Gripfill or similar adhesive.

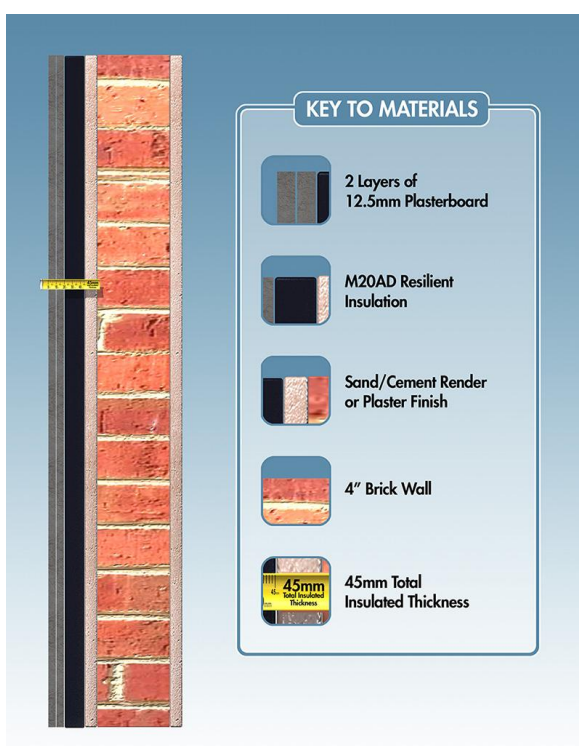
The face plate of the fitting can then be connected and screwed to the box as normal when the adhesive has cured. It is important to ensure that the hole the electrical wiring comes through is thoroughly sealed with acoustic sealant. Again we recommend a qualified electrician undertakes all work involving electrical installations. If the wall contains a chimney breast this should also be fully insulated with the M20AD solution.

Once you are satisfied the floor, ceiling and wall have been properly prepared, commencement for soundproofing the wall can begin.

Adhesive

Before using the Sta-Stuk adhesive, read the directions on the back of each can then proceed as follows; Shake can well before using. For best results, the ambient temperature should be 70°F/21°C and properly conditioned. Ensure all surfaces to be bonded are free from dirt, oil, grease, dust, and any other material that may affect the bond. Adjust the nozzle by turning to the largest spray pattern which is usually the third symbol to the right looking at the top of the can and near the base of the nozzle. Hold the can 6 to 8 inches away from surface and apply in even coats making sure the adhesive 'webs' across the surface. Do not wet the surface and take care not to use too much adhesive or you may run out before the end of the job.

Do not hold closer than 6 inches to the surface. and it is important a web pattern is obtained and at least 80% of the surface is covered. One surface should be sprayed vertically and the other surface horizontally. Do not concentrate in one spot or allow to puddle. Once both surfaces have been coated, bond the sound insulation directly to the wall with a firm, even pressure. Tack time can vary depending on climate conditions and may well be shorter or none at all if it is warm. In warm conditions, the adhesive may go off before bonding commences if too much time is taken before bonding the two surfaces together, so don't delay. It is important that good pressure is applied to ensure a firm bond is obtained. A roller may help. Although our adhesive is low odour, it is still advised the area where the work is being conducted is well ventilated with a window open if possible. The adhesive should be stored at normal room temperatures of 15° - 21°C.



Occasionally, for various reasons such as cold or damp conditions, problems may be encountered bonding the product to the wall. When this occurs, mechanical fixings can be used in addition to the adhesive as follows:

If fixing to plasterboard faced timber stud, additional normal wire nails hammered well into the insulation so the heads are below the panel surface work well. In these cases use only sufficient nails to secure the insulation effectively. When fixing to masonry walls nail guns can be used to shoot fire nails through the insulation or alternatively, masonry nails combined with battens can be used but these must be removed when the adhesive has cured.

Application

Before applying the insulation, sometimes there may be loose bits of backing paper sticking to the panels. This is used during production to stop the panels from sticking to each other. If any is found and it is loose then it must be removed. If any is found and it is firmly affixed then it is safe to leave it because it will be soundly bonded. Normally though, most M20AD acoustic panels supplied do not have any surface covering at all but do ensure any dust and debris is brushed off before using the adhesive. Now proceed as follows:

The sound insulation is applied as soon as the wall is suitably prepared. Ensure the wall is dry and free of dust or grease and the surface to be treated is flat and sound. Also, ensure the M20AD panels are clean and dry. Adjust the spray of the adhesive by turning the nozzle until a satisfactory pattern is achieved then evenly spray the surface of the wall and the panel as previously described.

Now bond the M20AD panel to the pre-glued area of the wall and apply with a firm pressure over the entire panel to ensure it is properly bonded over its entire surface.

As each panel is treated with adhesive, it should be stuck to the wall commencing at a bottom corner and working across at floor level and then progressively upwards. The application of the spray adhesive also applies to the plasterboard. If a panel has to be cut into a corner or to allow for an electrical fitting, this should be done before any adhesive is applied and is easily achieved with the aid of a sharp craft knife or jigsaw. Care must be taken to ensure there are no unnecessary gaps between the joints of the sound insulation. Any holes or spaces can be filled with acoustic sealant.

When each wall has been covered with the M20AD panels, no further treatment should continue until the adhesive has sufficiently cured. This would normally be overnight but in warm conditions the plasterboard can be applied immediately after the insulation has been applied. It is imperative the plasterboard has been stored and is used completely flat. Bowed or twisted boards must be avoided as these will affect the adhesion to the insulation. The plasterboard must be glued in the same manner as the insulation and not fixed with nails or screws as this will affect the efficiency of the insulated wall. Two layers of Acoustic Plasterboard of 13mm thickness totalling 30mm should be used for the following operation.

Cut the acoustic plasterboard to the correct height between the ceiling and floor allowing a small gap at both bottom and top before applying the adhesive. When each board has been treated with the Sta-Put adhesive, place it in position on the soundproofed wall ensuring a small gap is left where the board meets the floor, walls and ceiling. Proceed with more boards across the entire wall and again, leave a small gap where the last board is cut in. There should now be a small gap all around the edges of the plasterboard where the boards meet the floor, ceiling and juxtaposed walls. It is easier to use thin packing pieces to achieve this, which can be removed when the adhesive has cured.

Repeat the process for the second layer of plasterboard but this time overlapping the joints of the first layer. It may be necessary to support the plasterboard until the adhesive has sufficiently set.

It is not necessary to use the adhesive supplied to fix the second layer of plasterboard or skirting. So if you run out and cannot wait for new supplies, any alternative panel adhesive, can be used ie. Henkle Wallboard adhesive, Colas Gripfill 1133 or Unibond Wallboard Adhesive.

NOTE! These adhesives are not suitable for use with the M20AD acoustic panels. They are only to be used for bonding plasterboard to plasterboard.

SOME ADHESIVES ARE HIGHLY FLAMMABLE UNTIL CURED. THEY MAY CONTAIN A PETROLEUM MIXTURE WHICH GIVES OFF FLAMMABLE HEAVY VAPOURS AND IF USED, SHOULD BE KEPT AWAY FROM NAKED LIGHTS AND ENSURE THE AREA IS WELL VENTILATED.

When the adhesive has cured, the soundproofed wall can be finished by plaster skimming or as desired. However, if plastering, be sure to maintain the small gap around the edges. This can be achieved with the edge of the trowel. When finished, the skirting board can be reapplied with adhesive or plasterboard screws. All screws used must be designed for plasterboard and must NOT bridge the insulation. Nails or screws must never be used.

Skirting boards should be fixed with a small gap beneath and in each corner to ensure the wall remains "floating". All gaps can be filled with flexible acoustic sealant that can be painted when cured.

Fitting of shelves, cupboards and radiators etc. should not commence until the adhesive has fully cured and at least a week after the plasterboard has been bonded. Be sure to use only the correct screws and plugs designed for use with plasterboard and be careful not to penetrate the insulation through to the structural wall.