

## SM20 Panel Installation Guide

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### 1. Prior to fitting

If you are soundproofing a party wall, be aware of the possibility of sound passing through the wall below the level of the floor boards. To combat this you should consider using 100mm AMW60 to fill the void under the floor immediately adjacent to the wall.

Another area where sound might be penetrating is through the party wall above the ceiling. While flanking transmission is an issue, do not become so concerned with it that it puts you off doing the job. Ceiling improvement can be done post wall work if it proves to be a weak link.

Make sure to fill any gaps and cracks. Obvious holes can be filled with a sand and cement mortar and small cracks filled with acoustic mastic. If you are able to, check the joists wall junction and fill any obvious holes with mortar or acoustic sealant.

As mentioned, the wall to be treated needs to be smooth and free of loose wall paper or flaking paint. You should think about using a PVA solution to bond the wall, prior to SM20 application, if it looks in poor condition.

Skirting boards, dado rails, light fittings, switches and power points have to be removed prior to applying the insulation.

**All electrical work MUST be undertaken by a competent individual.**

**Before starting any work on or around electrical fittings, ensure the power is disconnected.**

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 mortar 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.

If the party wall contains a fireplace that is not used, the ideal solution would be to brick up the opening and then treat the whole party wall with SM20 panels. Whilst this is ideal it is not often possible. From our experience we tend to find that it is the alcoves that are the weak point not the chimney itself. This is due to chimneys having to be heat and smoke proof therefore, usually, better constructed.

## **2. Using the SM20 Adhesive**

Before using the special SM20 adhesive, read the directions on the back of the can then proceed as follows;

Shake can thoroughly before use.

For best results, the ambient temperature should be 70°F/21°C and properly conditioned. Note at higher ambient temperatures the tack time of the adhesive is much faster.

**We do not recommend fitting in temperatures above 82°F as fast tack times may result in poor bonding.**

Ensure all surfaces to be bonded are free from dirt, oil, grease, dust, and any other material that may affect the bond.

If applicable, 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.

**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 or 'wet' the surface. It is important a web pattern is obtained and at least 80% of the surface is covered.

**Spray both the back of the SM20 panel, and the party wall.** One surface should be sprayed in a vertical pattern and the other in a horizontal.

**Do not** concentrate in one spot or allow to puddle.

Once both surfaces have been coated, bond the SM20 panel 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. **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 that where the work is being conducted is well ventilated with a window open if possible.

**A mask should be worn when spraying the adhesive.**

The adhesive should be stored at room temperatures (15° - 21°C)

Occasionally, for various reasons, 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 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 to allow a flush fit for the next layer,

### **3. Installing SM20 Panels**

Firstly check the panels before installation, removing any bits of loose paper that may still be stuck from the manufacturing process. Remove any dust. Make sure panels are dry.

Ensure the wall is dry and free of dust or grease and the surface to be treated is flat and sound.

Apply the adhesive as per the above instructions.

Now proceed as follows:

Bond the SM20 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. You should apply the SM20 in rows and work upwards. Starting in a bottom corner.

The application of the spray adhesive also applies to the plasterboard.

**Make sure you do all necessary cuts to allow for corners and electrical fittings before using the adhesive as it goes off very quickly.**

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 SM20 acoustic panels, no further treatment should continue until the adhesive has sufficiently cured.** However if it is warm (over 70 degrees) the curing is fast and work can continue on the same day. We recommend using two layers of 12.5 mm acoustic plasterboard with this solution although you can use 15mm or even 19mm planc.

Cut the acoustic plasterboard to the correct size. **A 3mm gap must be left where the plasterboard meets the floor, ceiling and walls.** When each board has been treated with the contact adhesive, place it into position onto the wall **ensuring the perimeter gap is maintained** It is easiest to use thin packing pieces to achieve this, which can be removed when the adhesive has cured. Once all the plasterboard is in place **the gap should be filled with acoustic mastic.**

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. If you run out of adhesive, at this point, you can use any common spray tack adhesive or Unibond wallboard adhesive to add the final layer of plasterboard. **It is imperative however that you use the supplied SM20 adhesive for the SM20 layer**

When the adhesive has cured, the soundproofed wall can be finished by plaster skimming or as desired. If plastering, be sure to maintain the small gap around the edges. This can be achieved with the edge of the trowel.

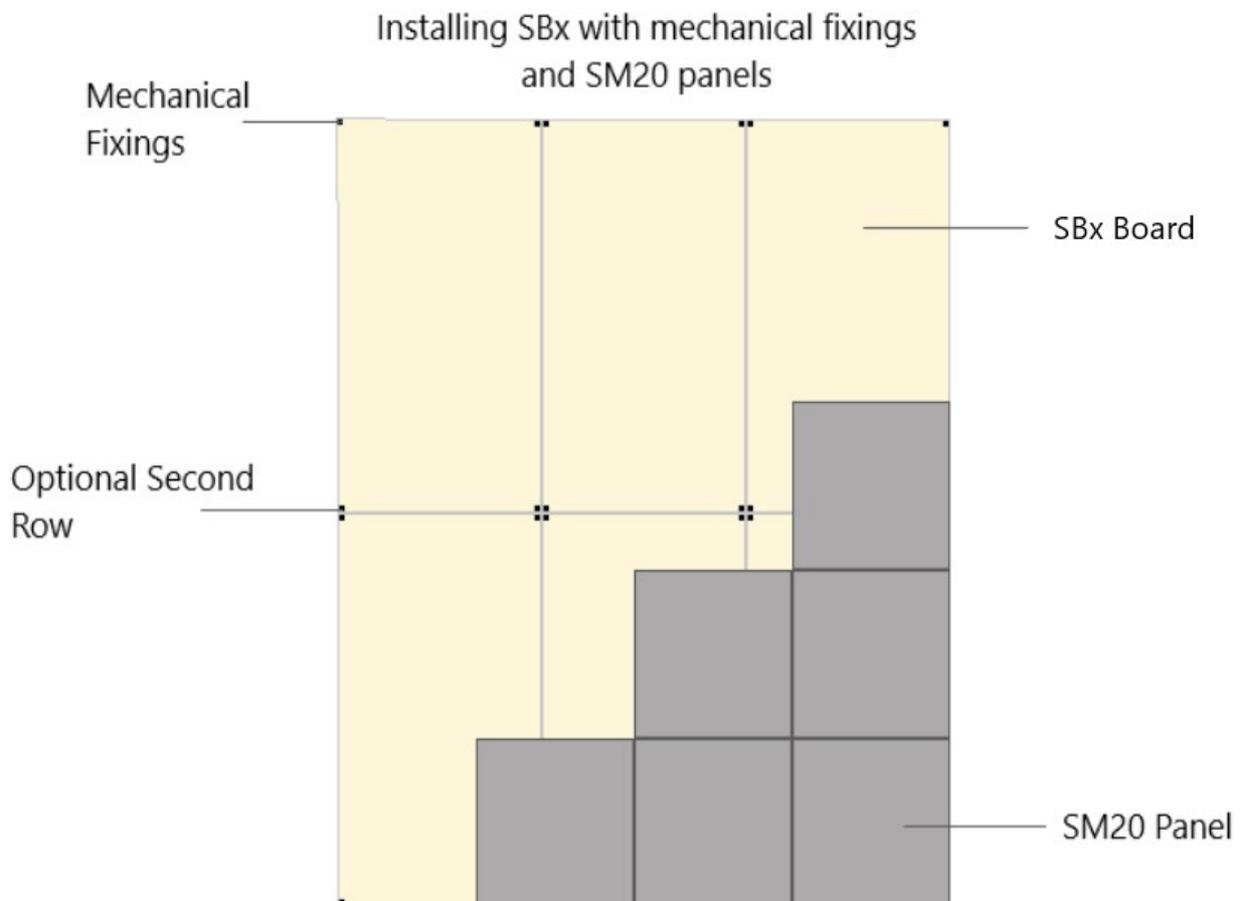
When finished, the skirting board can be reapplied with adhesive or plasterboard screws. **All screws used must be designed for plasterboard and must NOT bridge the insulation. Nails must never be used.** Skirting boards should be fixed with a small gap beneath and in each corner to ensure the wall remains "floating". All gaps can be filled with flexible acoustic sealant before decorating.

**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.**

## 4. Installing SM20 with SBx Upgrade

In essence the fitting instructions for the SM20 panel with SBx upgrade are the same as for the SM20 panel installation, with the exception of the first stage.



We regard the most robust method of fixing is to glue **and** screw the SBx boards to the party wall first.

The SBx board should be mechanically fixed near the corners and bonded with adhesive.

The easiest way of locating the correct position for the raw plugs in the wall is to position the board. Pre-drill with a very fine drill bit at the corners, this marks where the raw plug hole needs to be drilled. Remove the board, then drill and install the raw plugs.

Apply a generous layer of adhesive to the back of the board ( this can be the SM20 adhesive or a gripfill / no more nails or foam adhesive alternative)

Present the board to the wall then screw through the board and into the raw plugs. The SBx should have no movement whatsoever post this process.

You can then continue with the installation as per the instruction above.

**See below for instructions on how to cut and seal SBx boards.**

## **5. Cutting SBx Boards**

**Make sure to work on a stable surface, use something to capture any spilled silica so the boards can be refilled before sealing.**



Measure and mark cutting line.



Cut using a jigsaw with a metal or ceramic blade, or a fine toothed circular saw blade.



Refill board with any lost silica and tape the edge with the supplied tape leaving 2cm of excess tape at either end of the board. Fold down the tape onto the board along the length and fold down the corners.



Firmly push the tape down along the whole cut edge of the board.