

Meluton Reduce[®] Series

Installation Guide

You can also check out our Youtube channel [Oy Meluton Ab](#) for installation guide videos.



Installer's checklist to read before starting to work.

- Read the instructions carefully and plan your work well.
- Take measures of the insulation areas.
- Carve cutting templates shaped like the areas to be insulated. Cardboard is a good material for this.
- Cut all the insulation materials with the help of the cardboard templates and a sharp knife.
- Fit the pieces and carefully clean the surface before applying the adhesive.
- Use high-quality adhesive.
- Do not use the adhesive excessively.
- Do not apply the adhesive directly on the surface of the insulation board.
- Do not use any of the Reduce® Series Core Products on wet areas. Use always Reduce® Bitumen for the bilge and the Reduce® Heavy Layer for interiors that might get wet.
- Do not leave gaps or areas uninsulated.
- Do not block the air intake openings.
- Use the Reduce® Seal Tape to finalize corners and sides that are not protected.

Materials **Core Products**



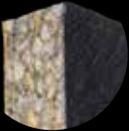
Meluton Reduce® Pro+ PUR A8 Combining the Basic and the Pro model, the Pro+ provides you with the best noise insulation on the market. Use it on surfaces near the source of the sound whenever you have 65mm of installation space. Attach the materials together with the self adhesive surface and strenghten the attachment with Sikaflex.



Meluton Reduce® Pro A8 Professional level noise insulation and fire protection. Use the Reduce® Pro on surfaces near the source of the sound whenever you have 35mm of installation space.



Meluton Reduce® Premium Eggbox Premium level noise insulation, use the Reduce® Premium on surfaces near the source of the sound whenever you have 28mm of installation space.



Meluton Reduce® Basic PUR Use the Reduce® Basic on surfaces distant to the source of the sound to dampen the echo.



Materials Additional Products



Meluton Reduce® Heat Use it on top of the sound insulation material in areas that are affected by the heat sources such as engine compartment or exhaust area. Attach the Reduce® Heat layer to the sound insulation material with Sikaflex.



Meluton Reduce® Bitumen Use it to enhance the noise insulation in wet areas outside your vessel. Install the Reduce® Bitumen always in temperature above +10°C



Meluton Reduce® Heavy Layer Use it to enhance the noise insulation in wet areas inside your vessel.



Meluton Reduce® Pelon Marina Use it to provide finished touch to your interior and protection from condensation in your cabins.



Meluton Reduce® Seal Tape Finalise your installation by securing the corners and sides of the noise insulation materials.



Meluton Reduce® Seat Laminate Use it to add comfort to your seating on your boat. The triple layered polyethylene foam is comfortable to sit on, doesn't soak and it prevents you from slipping.



Sound proofing the engine compartment



Measure



Clean



Attach

Step 1

Measurements & Fitting

Measure the inside dimensions of the engine compartment (picture 1). Create the blueprints or draw, for example, cardboard models. Pay particular attention to ensure that the insulation will be as seamless as possible. The insulation should retain its nominal thickness in the corners and folds.

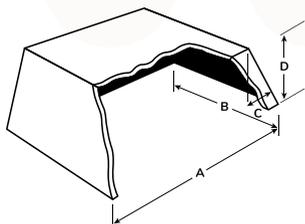
For areas connected to an interior and cabin air, like bilges, Reduce® Heavy Layer is recommended as an odourless noise barrier material. Reduce® Bitumen has its nominal odour and can be used in similar applications if the position is located outside or ventilated towards outdoors.

A noise trap can be built around the air intake (picture 2). The noise trap should not interfere with air circulation and, thus, cooling. The size of the noise trap depends on the diameter of the air intake. If there is enough space, it is possible to create the noise trap inside the engine cover.

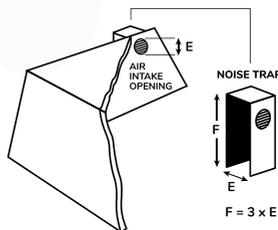
When you want the best possible soundproofing and there is enough space, you can notably increase soundproofing by installing another layer of the Meluton Reduce® Basic PUR. Combining this with the Meluton Reduce® Pro A8 creates the ultimate noise insulation system.

When installed in this way, the heavier Reduce® Pro A8 is attached to the hard frame, e.g. engine cover, and the lighter Reduce® Basic PUR is attached to its surface, closer to the source of sound. The highest quality boat manufacturers such as Targa of Botnia Marin, use this Meluton Reduce® Pro+ solution.

Finally, calculate the required amount of insulation.



Picture 1



Picture 2

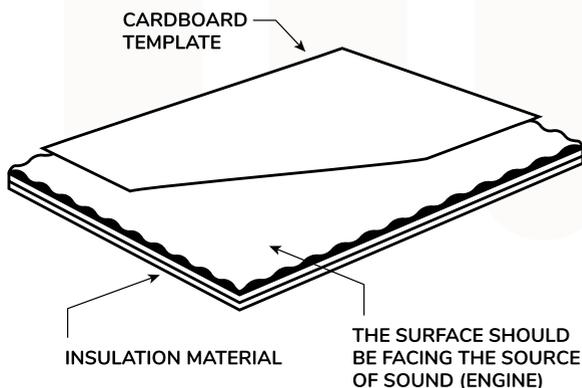
Step 2

Cleaning the Surfaces & Cutting the Insulation Material

Carefully clean the surface to which you will attach the insulation. In order to achieve good adhesion, it is important that there are no impurities such as grease on the surface. Use a solvent to clean the surface thoroughly.

Remember that the surface of the insulation should face the source of sound (Picture 3). You can recognise the surface of the insulation by its colour; Reduce® Basic Pur and Reduce® Pro A8 have a black surface and the Reduce® Premium Eggbox has a white surface.

Place a cardboard model (template) on top of the insulating board or sketch the shape of the piece you want with a pencil. Cutting can easily be done with a sharp carpet knife. Press the insulation together as you cut. Stock up on spare blades, because the blades get dull due to the mineral layer of the material. Use a flat surface for the cutting. Long and even cuts ensure a smooth cutting surface.



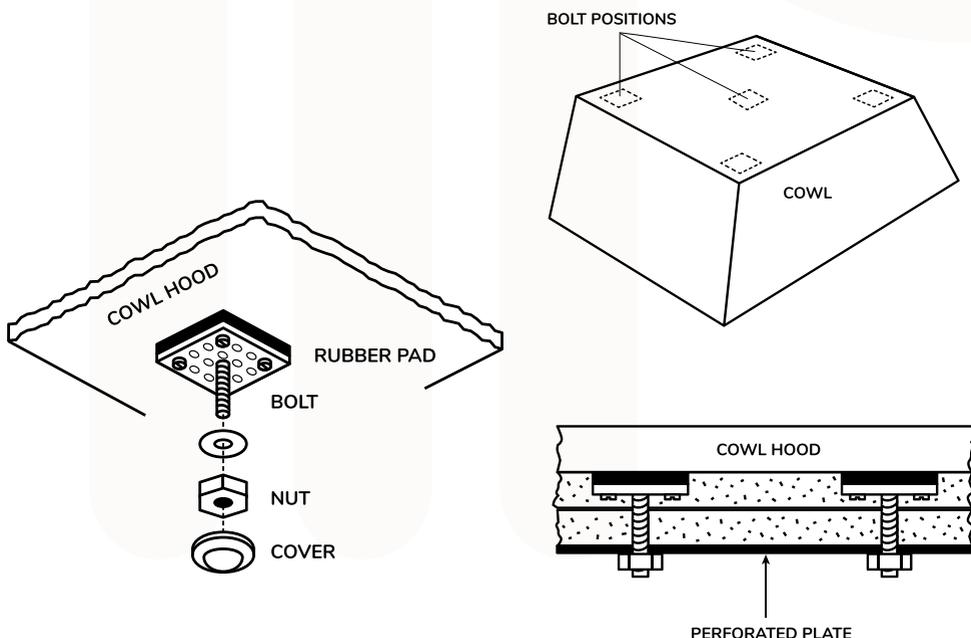
Picture 3

Step 3

Mounting the Bolts

If you are using bolts, attach them to the engine cover now. Bolts should be placed in the corners and in the middle. You can also improve the fastening by using perforated plates or strips.

This makes it easier to attach the product to, for example, the ceiling. Do not bolt directly through the roofing material. The use of rubber pads is also recommended. (picture 4)



Picture 4

Step 4

Adhering

Remember to check the application temperature of the adhesive before you start this step. Recommended adhesives: Sikaflex 221, Kiiltoflex K

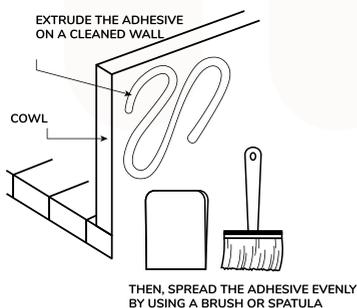
Before applying the adhesive, try to fit all the pieces together. At first, extrude the adhesive for example by making a large letter S. Then, spread the adhesive evenly with a brush or spatula. (picture 5)

Expose the insulating material sheet by pressing the bottom of the sheet against the wall. The pores will absorb the adhesive from the wall. Take the plate off the wall and allow it to breathe for a while (approx. 1 to 5 mins, depending on the adhesive).

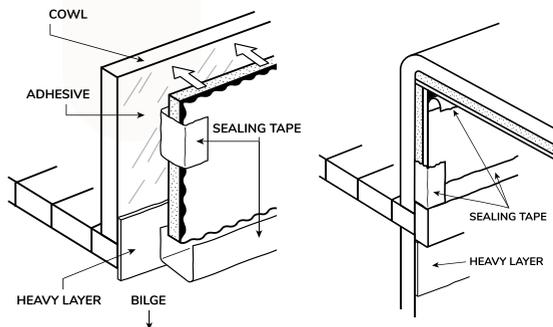
Do not apply the adhesive directly onto the sheet, because the sheet is porous at the bottom and would absorb a lot of adhesive. Too much adhesive would also weaken the functioning of the distancing layer.

Finally, attach the sheet by pressing it properly and use supporting structures if possible. Let the adhesive dry fully.

You get the best end result by finishing the work with the Meluton Reduce® Seal Tape, which protects the insulation from moisture and impurities. The tape is installed on the edge of the sheet. (picture 6)



Picture 5



Picture 6

Heat proofing the exhaust area

Attaching The Reduce® Heat

After you have successfully installed the sound insulation materials, it is time to heatproof the areas around the exhaust pipe. To do this, use the Meluton Reduce® Heat to cover the areas about to get hot.

Use Sikaflex to attach the the Reduce® Heat cover on top of the sound insulation material. Remember to apply the foil side towards the source of the heat. Leave an air gap between the source of the heat and the foil surface of the Reduce® Heat cover. Use the same method when applying the adhesive than in part 1.

The Reduce® Heat cover is made from unabsorbing glass fibre so make sure you wear gloves while handling the material.

Installing the upholstery

Attaching The Reduce® Pelon Marina Upholstery

The Reduce® Pelon Marina upholstery can be installed mechanically or by using a carpet adhesive resistant to PVC and temperature variations. We recommend using adhesives such as Bostik Contact 31, Sikaflex 221 or Sikabond 590.

Make sure you are not applying too much of the adhesive as it may result in an unpleasing finish. Just a narrow line of adhesive needed which you should spread evenly with a brush or a spatula (see picture 5).

Attaching the seat laminate

Attaching The Reduce® Seat Laminate

To reduce discomfort, use Reduce® Seat Laminate to make your seating warmer and less slippery.

Before applying Reduce® Seat Laminate, remove any existing materials, including the small bits and pieces. Heating the surface with a heat gun can facilitate the detachment process. When using a heat gun, apply the heat to the area where the laminate is attached, not directly on the material itself, to avoid damage.

Ensure the surface is thoroughly cleaned with acetone or spirit before attaching the Reduce® Seat Laminate.

Use masking tape to mark out the area where you wish to apply the new laminate. Measure the area with a ruler and cut your material accordingly. Use a sharp knife or box cutter for precision, and it is advisable to cut the material on top of plywood or a few layers of cardboard for stability.

Verify that your cut piece corresponds to the area marked with the tape. Once confirmed, you're ready to proceed. Reduce® Seat Laminate has a self-adhesive surface, allowing you to apply the material directly to the desired location. Before attaching, use a needle or knife to carefully remove the white plastic liner from the adhesive surface.

Begin attaching the material at one side and then remove the marking tape. Continue by attaching the rest of the material, pressing it down evenly to achieve a sleek finish.

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