

CONSTRUCTION EXAMPLE
SILCARAPID® 850CB

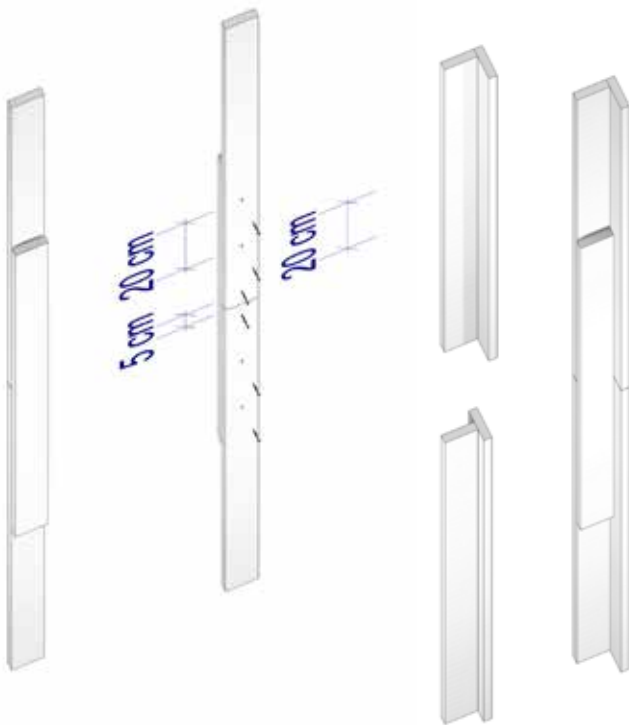




SILCARAPID® 850CB

The construction and installation of fireplaces have to be carried out in accordance with the national legal regulations. We always recommend a professional installation carried out by a qualified company. Before planning the fireplace, clarify the fire and heat protection with the responsible chimney sweep. Follow the guidelines for occupational health and safety, the specifications of the heating insert manufacturer and the safety data sheets for the materials to be used. Legal regulations and specifications include the TR-OL Technical Regulations for Stove and Air Heater Construction, Firing Ordinances, TRGI (Technical Regulations for Gas Installation), TRF (Technical Regulations for Liquid Gas) and the Federal Immission Control Act as well as the standards and guidelines for fire protection, which are valid in Germany.

Check any attachments, floors, ceilings and adjacent walls for combustible components and protect them in accordance with the respective legal regulations. It may be necessary to install an additional rear ventilation for insulation. Combustible attachments to the fireplace, as well as shelves such as eg. a wood storage, have to be adequately protected from thermal stress. We recommend the use of our SILCA® 250KM insulation board in sufficient board thickness to protect the adjacent walls and attachments. The SILCARAPID® 850CB construction board can be combined with the SILCA® 250KM insulation board and the SILCAHEAT® 600C construction board for fireplaces. Please notice our general catalogue SILCA® Domestic Fireplaces and Chimneys and the SILCARAPID® 850CB brochure, as well as the technical data sheets and safety data sheets of the products used.



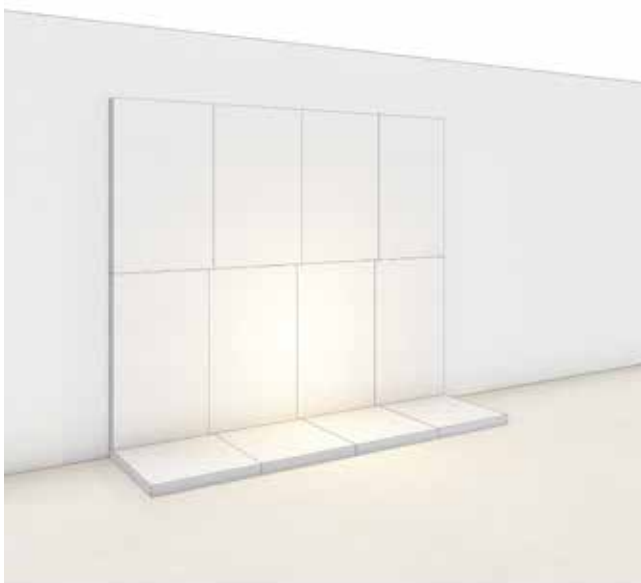
pic A

1

Prepare sufficient L, T or U profiles for your fireplace out of the offered **SILCARAPID® stripes** 1250 x 68 x 17 mm. We recommend the use of an electric or cordless screwdriver and/or a drywall screwdriver as well as an electric or cordless stapler or brad nailer for connecting by using stainless steel or phosphated screws, staples or nails with a length of max. 25mm to 30 mm. (see picture A)

2

Insulate the adjacent walls and adjacent parts with a sufficiently thick **SILCA® 250KM** insulation board in accordance with the national regulations and legal requirements. For this, cut corresponding **SILCA® 250KM** boards to the required size and bond them with SILCADUR-HFS adhesive. Please note that a rear ventilation may have to be planned and installed. In addition, the heating insert manufacturer's specifications in the installation instructions have to be followed. All attached parts of the fireplace have to be protected against too high thermal stress. (see picture B)



pic B



pic C

3

Align the heating insert and ensure that it is stable and that the floor surface is sufficiently stable and insulated.

4

Fix the L-profiles to the wall, floor and/or ceiling to define the fireplace. The thickness of the **SILCARAPID® 850CB** construction board has to be taken into consideration. (see picture C)

5

Connect the heating insert to the appropriate connections in accordance with the legal regulations.



pic D

6

Place the prefabricated stripes as I-, L-; U- or T-profile. Make sure that there is sufficient stability and that they are aligned accurately. The installation of front, side and cross profiles gives the supporting construction the required stability. The entire fireplace should be installed in a decoupled manner. (see picture D)

**7**

If necessary, also plan the use of a false ceiling as insulation with **SILCA® 250KM** at the upper edge of the warm air grille. This serves to insulate the room ceiling and to deflect the warm air. Sufficient cross profiles as well as the rear insulation out of **SILCA® 250KM** can be used as a support for the false ceiling at this point. (see picture D)

8

pic E

SILCARAPID® 850CB then is fixed to the prepared supporting construction with 25 mm to 30 mm stainless steel or phosphated screws, nails or staples. We recommend a distance of 100 to 250 mm between the single screws, nails or staples. Make sure that they are screwed in and countersunk completely. Keep a sufficient distance between the heating insert and the stove lining (expansion of the heating insert) and mind the installation of a sufficient number and size of supply and warm air grilles according to the heating insert manufacturer's instructions. (see picture E)

9

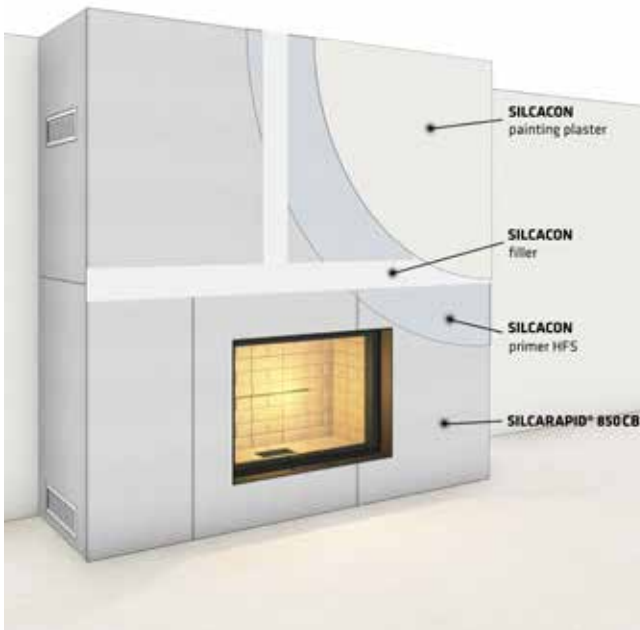
Double planking of **SILCARAPID® 850CB** is not generally necessary. But for reasons of better stability (e.g. in case of heavier pictures or attachments) it may be applied overlapping the joints in individual cases.

10

To facilitate filling the joints between the boards, we recommend deburring the edges of the **SILCARAPID® 850CB** boards with a file or drywall plane and breaking the edges at 45 ° to a depth and width of approx. 5 mm.

11

Prime the joints, screw, staple or nail holes in the **SILCARAPID® 850CB** with **SILCACON primer HFS**. For this, mix the primer with clean water in a ratio of up to 1:2.



pic F

12

Fill the primed joints and mounting holes with **SILCACON filler**, e.g. using a putty knife, and scrape or sand the hardened filler material. **SILCACON filler** is mixed with water to a homogeneous mass approx. 1 kg/0.8 litres of water. After a maturing time of 5 minutes, stir the mass again and then apply. (see picture F)

13

Remove any dust that may coat the **SILCARAPID® 850CB** construction boards as a result of the sanding work. Prime the entire surface of the **SILCARAPID® 850CB** construction board with **SILCACON primer HFS** using a brush, puff, paint roller or a sprayer.

14

Depending on the customer's wishes, the entire surface of the **SILCARAPID® 850CB** may now completely be filled a second time in order to meet the highest quality requirements. The application is carried out then in a layer thickness of 1 to a maximum of 4 mm. With thicker layers there is a risk of cracking! The required quantity is approx. 1.5 kg/m² for a layer thickness of 1 mm. The application temperature is between 5 and 30°C. After 24 hours of drying, the **SILCACON filler** can be sanded.

**15**

Design the surface of the **SILCARAPID® 850CB** construction board individually. Due to the smooth and high-quality surface of the new SILCARAPID® 850CB construction board, labour-intensive plastering of the surface is no longer necessary. We recommend a surface treatment with the white **SILCACON** painting plaster. For a further colour design, it is possible to paint over the **SILCACON painting plaster** with a temperature-resistant silicate paint. Stir **SILCACON painting plaster** thoroughly before application, then work up with a brush, paint brush or paint roller and structure if desired. The required quantity is approx. 400-500 g/m². Do not apply below +8°C air and object temperature. Discrepancies due to the object are to be determined by a test coat.

16

It is also possible to cover the surface, completely or partly, with natural stone, granite, marble, tiles or stove tiles. We recommend **SILCACON adhesive** for bonding. Ensure sufficient stability when covering the SILCARAPID® 850CB construction board. In any case, the surface has to be pre-treated with **SILCACON primer HFS** beforehand. Possibly, a thin, roughened adhesive layer has to be created afterwards by raboting with the SILCACON adhesive. For this reason SILCARAPID® 850CB is produced with an only slightly sanded surface on its backside.

17

After a drying time of at least 24 hours, the fireplace can usually be taken into commission in accordance with the heating insert manufacturer's instructions.

18

Please note that the construction and the commissioning of fireplaces may be subject to notification according to national regulations.

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