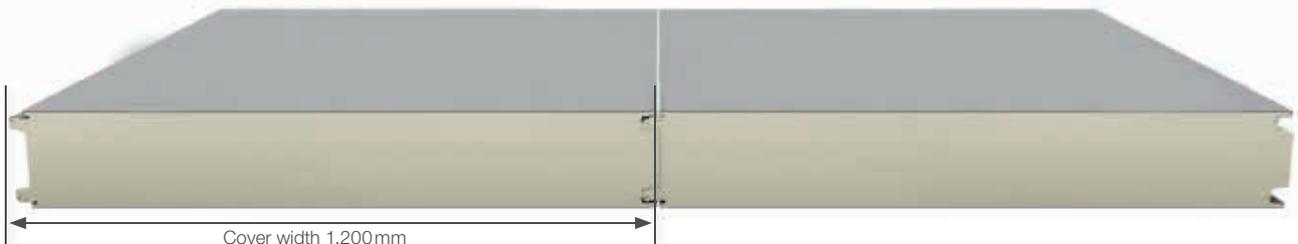


ems-isolier[®] panels with GRP application

Technical specifications & processing instructions

// The GRP plate „FS 5000“

// FS 5000 – excellent properties for high demands



If required, you can order our ems-isolier® panels with the **special FS5000** coating; this is characterised by a structured and smooth finish on the visible side. The GRP plate FS 5000 (glass fiber reinforced plastic plate), with a thickness of 2.0 mm and enhanced with an additional PET film or gelcoat surface treatment, provides first-class corrosion behaviour under aggressive circumstances.

Both surfaces also protect reliably against bacteria, germs, and many chemicals. The GRP plate FS 5000 ensures a highly effective and efficient surface protection for the use in coldstore construction and food safe areas.

- Fruit processing
- Butchery
- Ice and dairy products
- Areas with drinking water
- Wall surfaces in hospitals
- Wetroom
- Spaces of food processing
- Ripening rooms for cheese
- Clean rooms



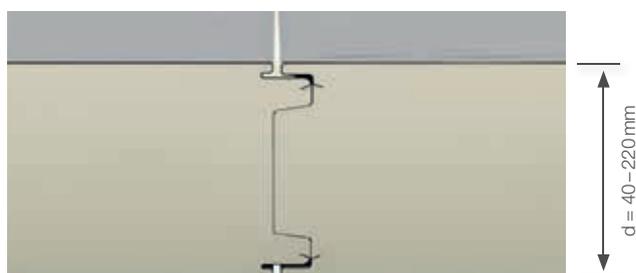
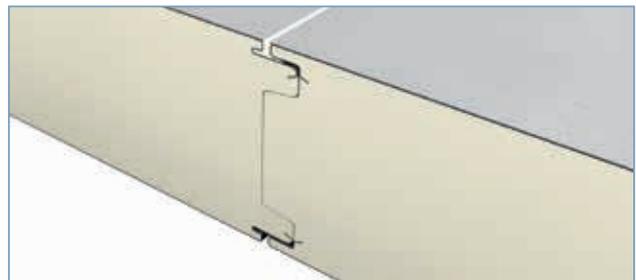
GRP-Application FS 5000 in „structured“

// Advantages and features

- Suitable for indoor use in the food industry with high demands on resistance against mechanical loads
- Very good chemicals and stain resistance due to injury-insensitive surface
- Food safe and easy to clean surface
- Robust, abrasion-resistant and durable
- Can be used from -2 °C to +30 °C

On demand:

- FS 5000 is available with our panel ems-isolier® POLAR and ems-isolier® panel EM
- Element thicknesses from 40–220 mm (EM)
- Element thicknesses from 80–220 mm (POLAR)



// Technical specifications

Delivery length: Standard 2 to 8 m (other lengths on request)
 Packaging: To factory standard

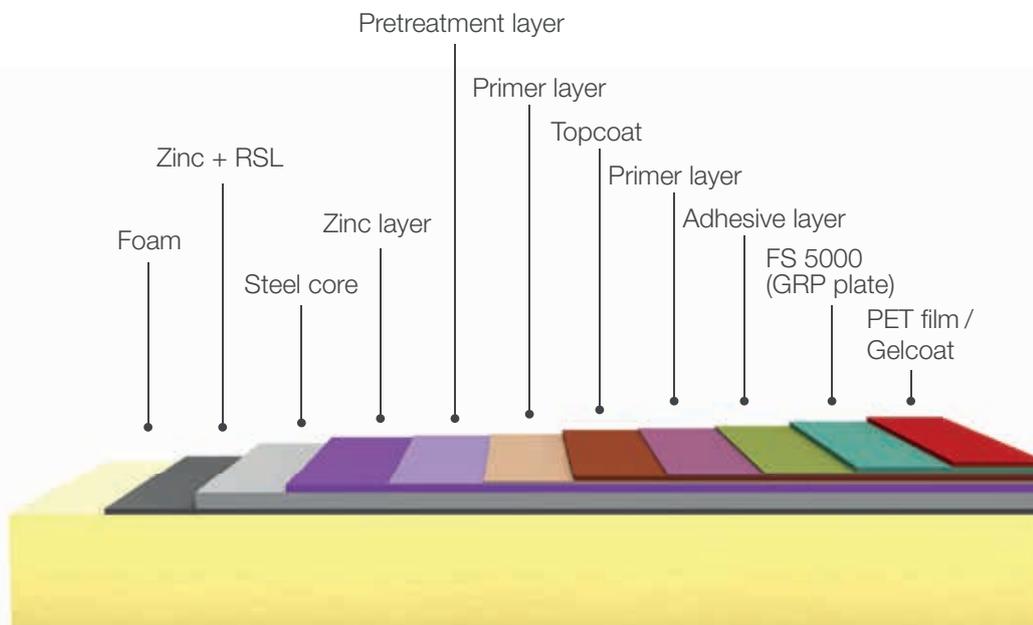
Characteristics: **Surface sealing:**
 PET film or gelcoat
GRP plate:
 Thickness: 2,0 mm structured or smooth
 Glass fiber mats, UP resin

Accessories: **Joint material:**
 ems® adhesive sealant 25 (ems® KL 25)
 Pneumatic cartridge gun especially for ems® KL 25

Outer and inner corners rounded, T module and mounting plates

We are pleased to advise you on element configuration for your individual application.

Structure of the coating:



The individual specifications in this datasheet are guaranteed properties only if they are expressly confirmed as such in writing in each specific case. Subject to technical changes. 09/2018. www.ems-bau.com

Note: Deviation in colour and colour changes on the cut surface of the QuadCore™ and IPN3 insulation core are based on weather influence. While panels are stored outside UV-light might modify the colour of the core. This does not affect the quality of the panel and is no reason for complaint.

// Product description: ems[®] adhesive sealant 25 (ems[®] KL 25)

// Area of application

KL 25 has been developed for use in „jointless“ cold storage and wet rooms with GRP panel walls and ceilings (EasyClean-Pan[®] system). The joint sealant is physiologically harmless, extremely hard – therefore

no breeding ground for molds – but it is viscoelastic and has a very high adhesion. These properties are ideal for use in grouting in rooms with high hygiene requirements due to wet cleaning.

// Advantages

- When used as intended and fully hardened: resistant to yellowing and discoloration (not an epoxy resin), UV resistant
- Extremely good viscosity. Also extremely well-suited for overhead work
- Creamy texture, therefore very easy to work with and smooth
- No shrinkage on hardening as a polyaddition reaction between both components takes place during hardening
- Solvent-free, no inherent odor
- Extremely high level of adhesion on various substrates

// Product data

- **Colors:** White, similar with RAL 9016 (other colors available upon request)
- **Form of supply:** Double cartridges, 400 ml (picture similar) incl. 1 pcs. mixing tube



- **Storage:** The filler can be stored in the sealed original container for a maximum of 12 months. If a cartridge is opened and re-sealed, the sealant can also be used up to 12 months after manufacture.

// Application

// Requirements

- **Requirements:** Suitable cartridge gun
EMS recommends the use of a pneumatic cartridge gun (picture similar).
This can be supplied if required.



- **Material preparation:** The cartridge should be at room temperature (approx. 18 – 23°C) in order to ensure easy application and full hardening. Heat accelerates and cold delays hardening. Using at material and ambient temperatures <15°C ensures no appropriate result! Place the mixing tube on the upper side of the cartridge and attach with the white plastic fastener.

// Procedure

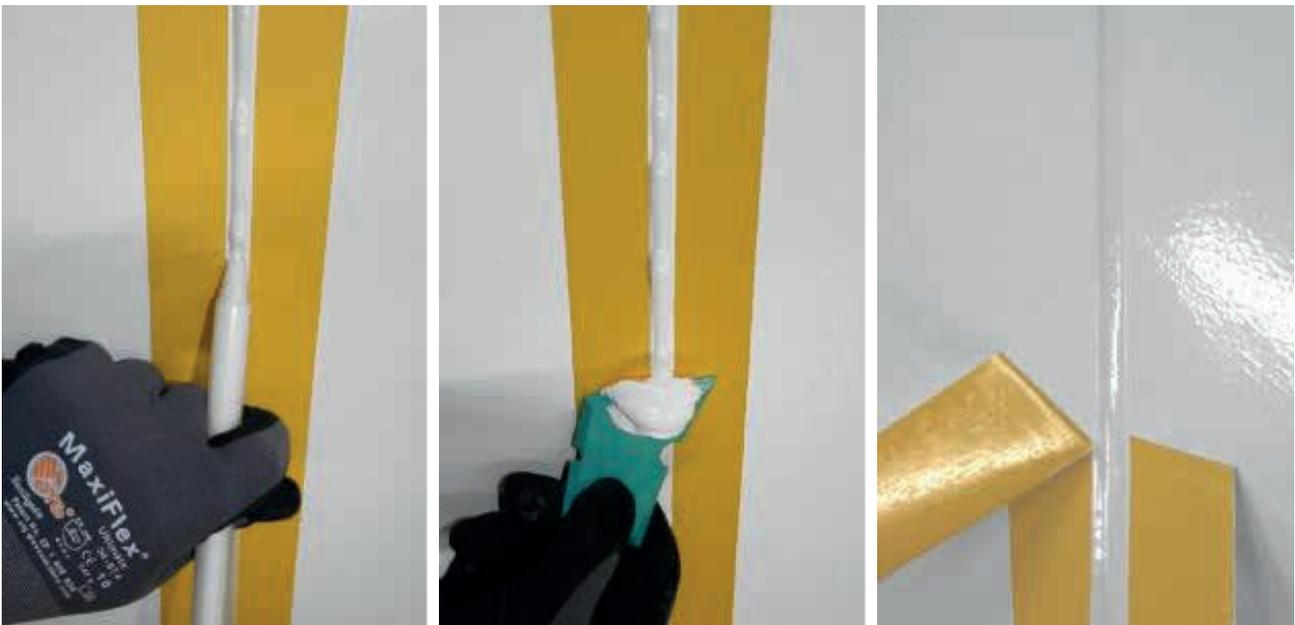
// Important:

Press out 10 cm of the material with only slight pressure (length of mixing tube, approx. 15 to 20 grams) and discard. It is only in this way that you can ensure that both components are thoroughly mixed. Adopt exactly the same procedure after every change of mixing tube. The mixing tube must be replaced if the ejection process is interrupted for more than 5 minutes (20° C).

Inject a generous amount of the ems[®] KL 25 joint sealant evenly into the joints, completely filling the groove immediately and draw the grout float along both strips of adhesive tape applied at the factory and smooth. Do not use water as a smoothing agent! It is best to draw the grout float in one flowing movement in order to achieve a perfect appearance.

Use a cloth to remove the excess joint sealant which has collected on the tool during the grouting and smoothing process.

Remove the adhesive strip immediately after you have completed smoothing and allow the joint sealant to harden.



If very large areas are treated or if temperature differences are high, the occurrence of individual tension cracks cannot be completely ruled out. Such cracks are not a defect as they help the system to

release tension. These cracks can be filled again with ems[®] KL 25. This may also be done during ongoing production. ems[®] KL 25 is harmless and odorless.

// Processing time

Because of the influence of temperature, the processing time can vary widely. Both the room temperature and the temperature of the sealant play an important part (please also note the “Material Preparation“ section). The dimensions of the cross section also influence the reaction time of the twocomponent material (large cross sections increase the speed of the reaction).

The following information provides a general view of the times which should be allowed when using ems® KL 25 for standard groove widths (indicative figures).

The times commence when the ems® KL 25 is ejected from the cartridge (please allow for the time taken in applying the sealant).

Complete hardening of the joints should be completed after 48 to 72 h.

Temperature	16°C	24°C	27°C
ems® KL 25 smooth-able up to	13 min	6 min	5 min
ems® KL 25 firm after	31 min	14 min	9 min
ems® KL 25 touch-dry after	24 h	5 h	4 h

// Storage after use and re-use

Leave the mixing tube on the cartridge during storage of started cartridges. Store at room temperature (approx. 18 - 25°C). Do not change the mixing tube until the product is re-used. At this time clean the opening of the cartridge before use. Discard the first 10 cm of the material in order to ensure that you have the correct mixing ratio.

// Legal notice

The information above is provided to the best of our knowledge and belief. However it is to be considered only as non-binding information. Nevertheless this advice and the instructions do not release you from your own verification of our product with regard to its suitability and functionality for the intended procedures and use. We have absolutely no influence on the on-site situation and processing or on the substrate and geometry of the groove. Third-party claims for damages are excluded. The information contained in this data sheet is valid at the time it was printed. Owing to the continuous development of machinery and materials we retain the right to change the formula without prior notice. The above-mentioned information is provided as a guideline for the various possible uses of the product. It is the responsibility of the consumer to assess the suitability for specific applications. All the recommendations, statements and technical data in this data sheet are based on tests which we consider to be accurate and reliable. However, the accuracy and reliability of such tests is not guaranteed and may not be construed or interpreted as a guarantee. The consumer should rely on his own information and tests as far as determining the suitability of the product for the intended use is concerned and bears all the risks and liability arising from the use of the product. The sole responsibility of the seller and manufacturer is to replace that part of the manufactured product which is demonstrably defective. Neither the seller nor the manufacturer is liable to the purchaser or any third party for any injury, damage or loss which is caused directly or indirectly by the use of the product. Recommendations or statements are not binding for the manufacturer or seller unless they have been confirmed in writing and signed by the management of the manufacturer.



// Contact

*Additional information
is available at:*

*Brand marketing ems
Sebenter Weg 41
23758 Oldenburg/Holst.
Germany*

*P: +49 4361 5112-31, -33
F: +49 4361 5112-11
E: info@ems-bau.com
www.ems-bau.com*

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POLAR