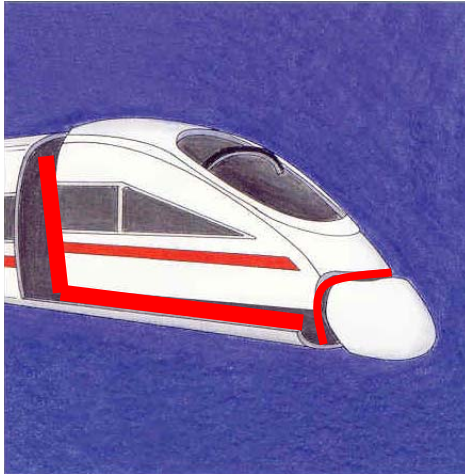




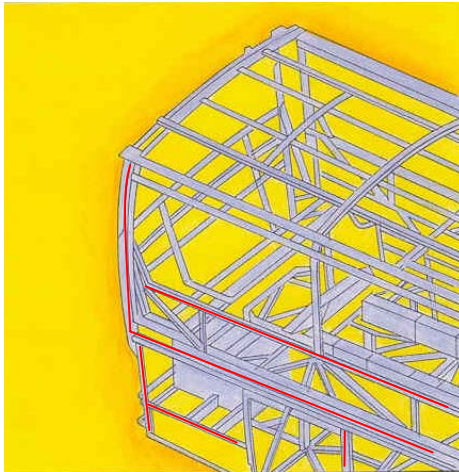
KÖMMERLING®

National
Seal Systems
Limited

Assembly of vehicles

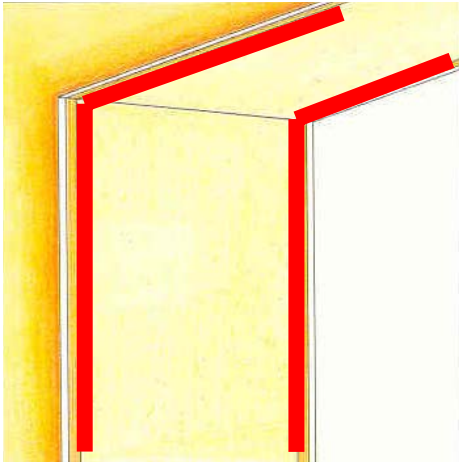


Bonding of GRP-locomotive head to the body with Körapur one or two component.



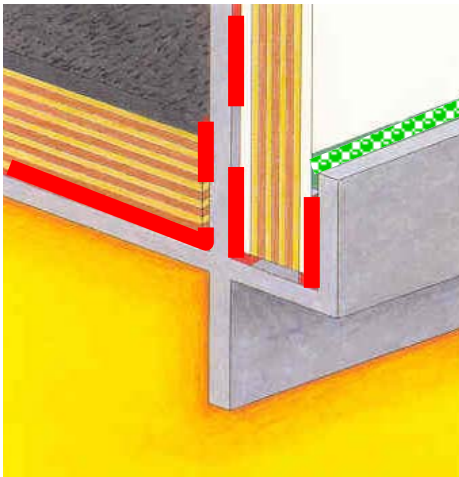
Sealing of spot weld seams with Körapop (MS-polymer). Bond side panels and base plate with Körapur and Körapop 1p and 2p.

Assembly of vehicles



Sidewall element in insulation construction

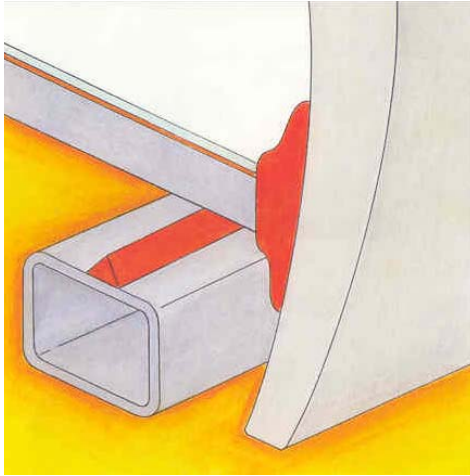
core composite element from PS-foam or PVC-hard foam with surface layers of GRP, aluminium, steel or SS panel and wooden inlays bonded with **Körapur 1p** or **2p**.



Assembly bonding

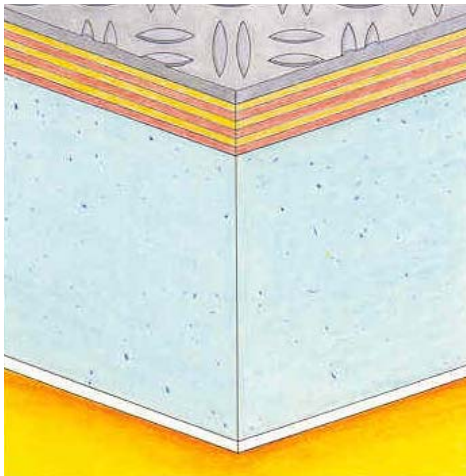
Bonding of plywood side wall and screen printed floor panels into the profile and sealing against water penetration with **Körapur** or **Körapop 1p** or **2p** adhesives.

Assembly of vehicles



Floor element

bonding with **Körapur** 1p or 2p and sealing with **Körapop**.



Floor element in adhesive technology

Bonding of aluminium sheet, plywood and rigid insulating foam with **Körapur** 1p or 2p. Apply **Körabond** primer to improve adhesion, if required.

Assembly of vehicles

2 PART PUR



1. The Equipment



2. Preparation



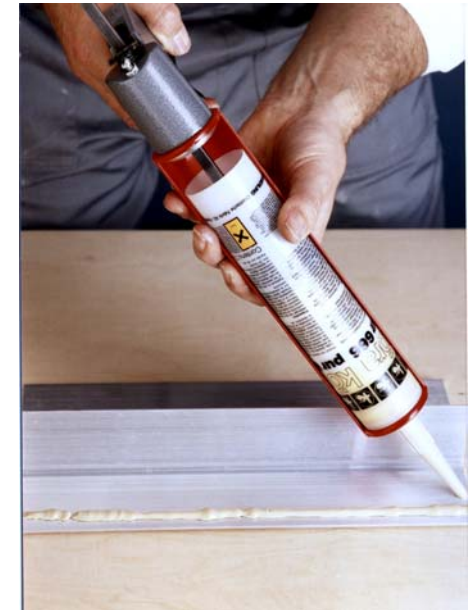
3. The Gun



4. Mixing



5. Nozzle



6. Application

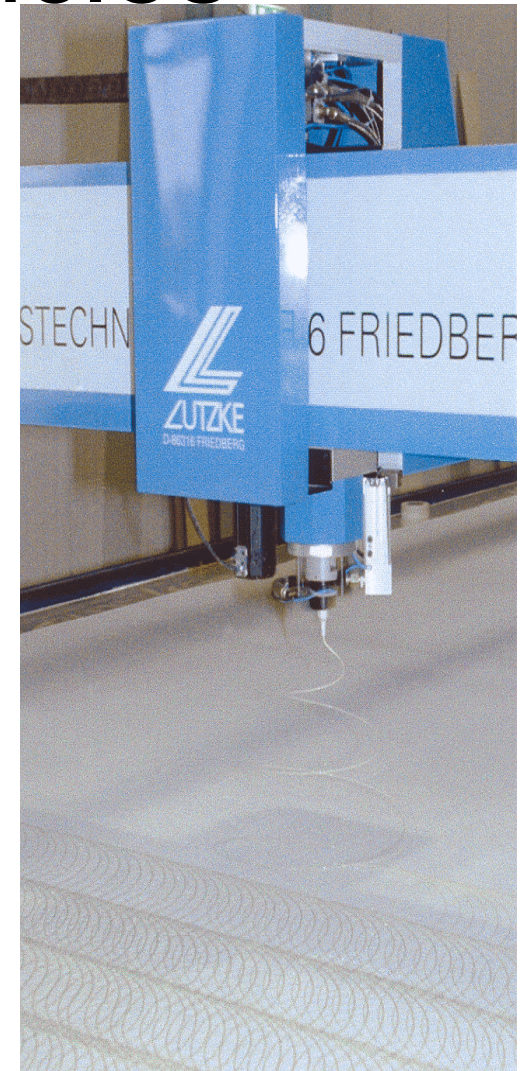
Assembly of vehicles

Application

Full automatic spiral application



Two part mixing system from T S I.



Assembly of vehicles



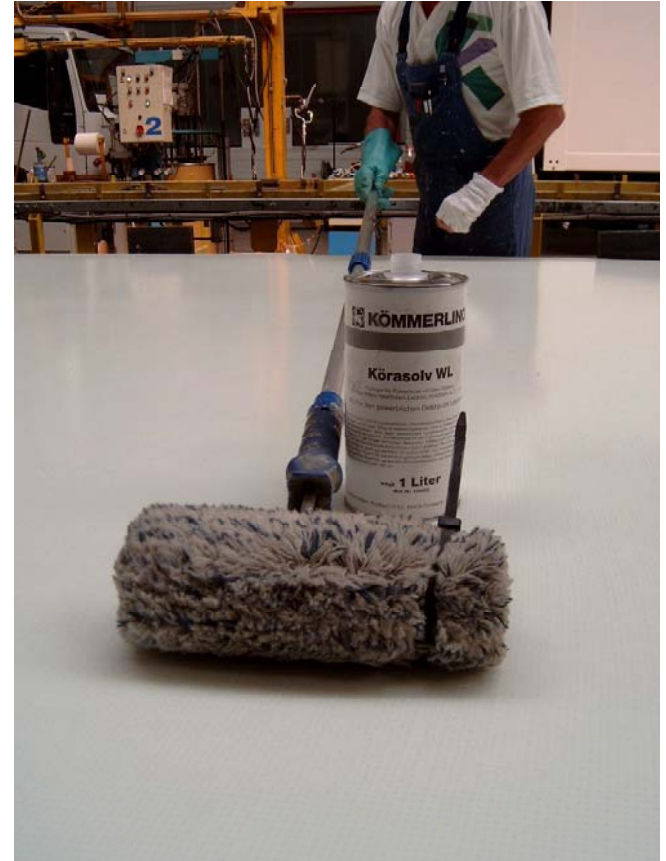
Körapur 666

- roof application

Assembly of vehicles



Pretreatment of bonding parts with adhesion promoter **Körabond** before using 1-part PU or MS



Pretreatment of bonding parts with cleaner **Körasolv** before sealing with MS-Polymer

Assembly of vehicles



powder coated aluminium



GRP-sidewall

Assembly of vehicles



Roof application

- GRP laminate to aluminium crude and powder coated

Assembly of vehicles

Insulating Floors



Körapur 666/X



Manual Work done



Finished Floor

Assembly of vehicles



Assembled



Körapur 840



**The Rear
840 of course**

Assembly of vehicles

Finished Products



Floor coating

Sealing with Körapur 690

Two methods have become established on the market for the purpose of forming a surface with good grip:

1. After the base coat Körapur 689 has set, roll over it with the top coat Körapur 690 which contains quartz sand.

This form of coating saves one work cycle and is characterised by very uniform optical properties.

Floor coating



With a coat thickness of 3-4 mm, one drum is sufficient for about 3 m². Mark this area on the floor by means of a line. Pour hardener component into the drum of the A component and allow it to drain out completely.



For the purpose of coating, mix resin and hardener intensively in the weight ratio 4:1 with a stirrer unit (approx. 400 rpm), until no colour differences are still discernible. Mix for about 3-5 minutes. Recommended processing temperature approx. 22 °C.



Pour the mixed compound into a different clean vessel. Stir thoroughly for a further 2-3 minutes in this 2nd vessel. Process only from this 2nd vessel. The mixing process must be carried out thoroughly, but should not last longer than 5-8 minutes overall.



Pour out the content of the mixing vessel immediately in 2 portions and disperse with a toothed spatula. After stirring, the compound must be processed within a maximum of 10 minutes, so that optimum flow is ensured.

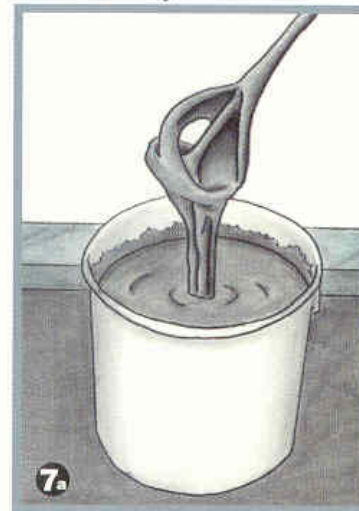
Floor coating



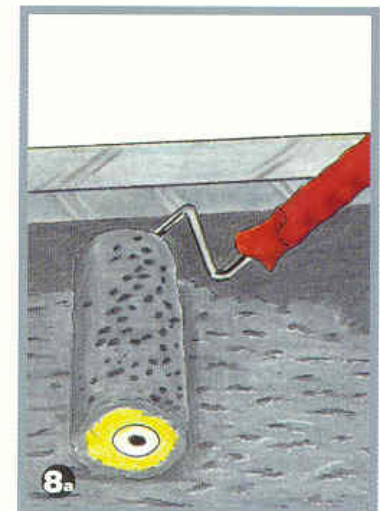
5. Pour hardener component into the drum of resin component. Consumption is approx. 500-600 g/m², depending on the desired structuring.



6. Mix Körapur 690 - resin and hardener - in the weight ratio 3:1 by means of the stirrer unit (approx. 400 rpm). Recommended processing temperature approx. 22 °C.



7. Pour compound into a different vessel and stir once again. The treated surface can be walked on after 24 hours.



8. Subsequently roll the Körapur 689-coated surface evenly with a foam roller possessing a pea-hole structure.

Floor coating

Sealing with Körapox BS 85

2. Sprinkle corundum granulate into the Körapur 689 coating during hardening, and afterwards coat with Körapox BS 85. This gives very good durability.



Floor coating



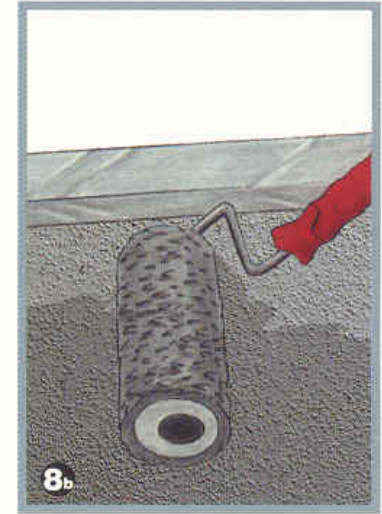
While the applied coat of Körapur 689 is still hardening, sprinkle in the appropriate corundum granulate. Hobnailed boots have proved effective for the purpose of walking this in.



The next day, brush off loose dusting material. Pour hardener into the drum of "A" component. Mixture ratio 4: 1 parts by weight.



Mix Körapox BS 85 - resin and hardener - intensively in the weight ratio 4:1 by means of a stirrer unit (approx. 400 rpm). Transfer compound into another vessel and stir once again.



Roll the whole surface area by means of a lamb-skin roller. Usage rate approx. 300 g/m². Recommended processing temperature approx. 22 °C.

Floor coating

New: Anti-slip sealing with Körapox BS 90

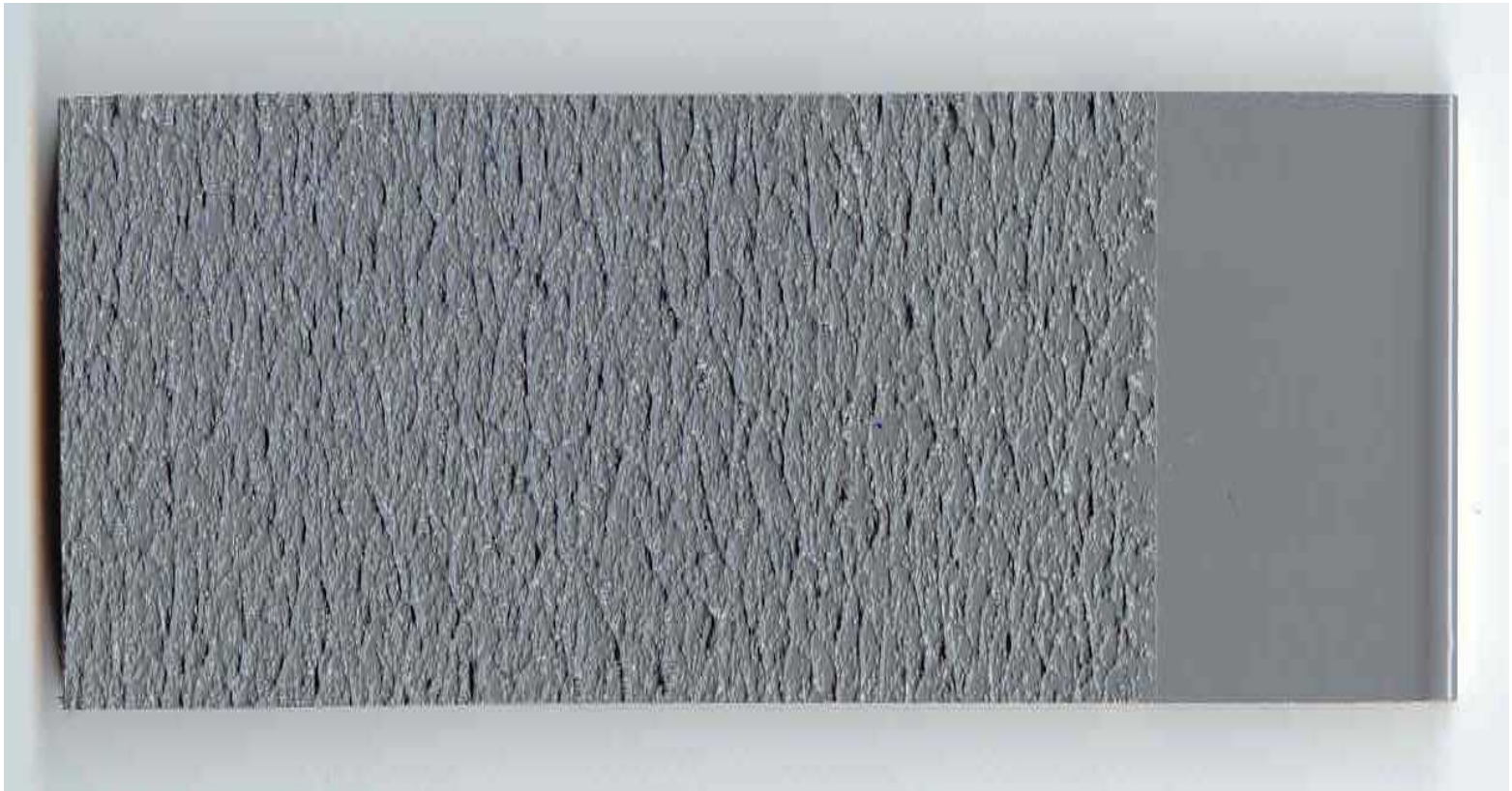
A anti-slip floor covering with good adhesion on metal.

- for metal (gangways, hangars, warehouses etc.)**
- application process like Körapur 690**

Floor coating

Base-coat: Körapur 689

Top-coat: Körapur 690 improved grip coating



Floor coating

Base-coat: Körapur 689

Top-coat: Körapox BS 85, bonding grit particle



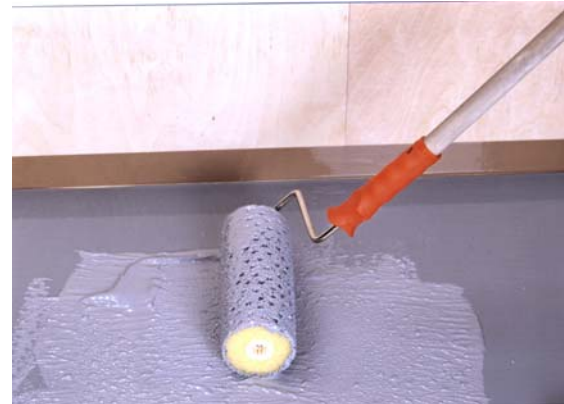
Floor coating

Base-coat: Körapur 689 with chips

Top-coat: Körabond HG 74



Floor coating



After-Sales market

Products

- MS-Polymers

Körapop 216

Körapop 225

Körapop 235

Körapop 240

- PUR-Basis

Körapur 125

Körapur 140



Spreadable Seam-Sealer



Körapop 223

- based on MS-Polymer
- very good resistance against corrosion
- overpaintable within 5 days
- Excellent spreading properties

Sealer for roof sections



Körapop 223/ Körapop 228

- based on MS-Polymer
- very good resistance against corrosion
- overpaintable within 5 days
- Excellent spreading properties

Elastic Adhesives/Sealer for the Busconstruction

Adhesives for side panels



Körapop 225, 235

- Sealer/Adhesive based on MS-Polymer
- high elastic
- less shrinkage

Körapur 125, 140

- Sealer/Adhesive based on PUR

Elastic Adhesives/Sealer for carriage construction

1-component-adhesives for passenger compartment floor



Körapop 225, 235

- Sealer/Adhesive based on MS-Polymer
- elastic
- less shrinkage

Körapur 140, 125

- Sealer/Adhesive, based on PUR

2-p adhesives for passenger compartment floor

Körapop 225/2K, 235/2K

- Sealer/Adhesive based on MS-Polymer
- elastic
- less shrinkage

Körapur 125, 140 + Booster

- Sealer/Adhesive based on PUR



National
Seal Systems
Limited

Unit 210 Holly Road, Western Industrial Estate.
Naas Road, Dublin 12
Ph 00353-1-4565170 Fax 00353-1-4502371
Email: info@nationalseal.ie web: www.nationalseal.ie