

Repair manual for LAMILUXplan

Despite the high mechanical resistance of our glass fiber reinforced plastics material LAMILUXplan, some damage can occur due to improper handling or accidents. By using this manual and following the relevant techniques the damage can be permanently repaired.

Although the techniques are fairly straightforward, they do rely on the user having reasonable knowledge and experience in automotive paint spraying.

It is strongly recommended to practice on several scrap panels first, as the skill of the user is most important to achieve a good visual repair.

In most cases an unused polyester film is sufficient to achieve a smooth surface on the repair area. When using a carrier film from the GRP sheet production the surface structure (fiber-print-through) can nearly be fully restored. The finish with adhesive film, available on request, is not suitable for this type of repair.

Rehau, 20.11.2000, S. Bachstein

Step by Step instructions:

- Sand and clean the repair area.
- Fill the depressions with standard UP-filler.
- For all severe damage use pieces of glass fiber mats in order to avoid any tension cracks in the filler.
- After the filler is completely cured, sand the repair area until smooth and flush with the existing wall.
- In case of considerable shrinkage of the filler (depression) repeat the last step.
- Mix the LAMILUXplan repair gelcoat as recommended by the manufacturer. Spread a thin sheet (appr. 200 µm) on a polyester film. For smaller repair areas use a paint brush.
- Spread the coated side of the polyester film on the repair area, press on with a squeegee, so that it is airtight.
- To check when the resin is cured (finger test) apply a layer of resin in addition on a second polyester film strip (control strip).
- Ridges and high spots on the repair area have to be sanded off to make it flat and flush with the adjacent surface.
- The curing is done best at room temperature, it can be accelerated by using a heat source, i. E. an infrared radiator (**50 °C/120 °F object temperature max.**).
- When gelcoat is fully cured (please check the control strip to make sure) remove the film quickly from the repair area.
- Polish or wet sand any ridges and high spots and spray lightly (not varnish) with acrylic lacquer

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Sand the repair area with grit 180 and clean with acetone.



Mix standard UP-resin filler as recommended by the manufacturer.



Fill bigger repair areas with glass fiber and filler, for smaller areas use filler only.

After curing, the work surface has to be suitable for face sanding (watch out for possible shrinkage).



Sand cured filler by using 180 grit until the surface is completely smooth and even.



Mix LAMILUX repair gelcoat as follows:

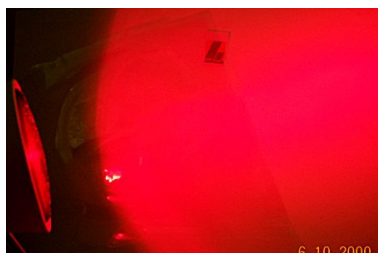
100 parts gelcoat + 1-3 parts Co-accelerator 1% + 2 parts catalyst
Consider safety instructions!



Spread or spray a thin resin film (appr. 300 µm) on a polyester film ("Mylar").



Spread the coated face of the film on the repair area. Work gently to eliminate all air bubbles from the gelcoat. Work out the edges of the new gelcoat film to avoid all ridges and high spots.



The curing can be accelerated by using a heat source (max 50 °C/120 °F on the GRP surface).
When fully cured remove the film.



Further treatment in case of any visible ridges or high spots: Polish or wet sand gently or spray lightly (not varnish) with colorless acrylic lacquer.

Suitable peroxide: Methylketoneperoxide (MEKP), Cyclohexanonperoxide (CHP)



Peroxide mixtures or acetylacetoneperoxides are suitable for curing, they can, however cause a change in color.

Safety precautions:



Don't mix peroxides immediately with any accelerators!
Protect your eyes with goggles, cover your nose and mouth with a respirator and wear gloves!
Pay attention to the safety data sheet of the peroxide supplier!