

# THE REPAIRING GUIDE FOR GRP PANELS

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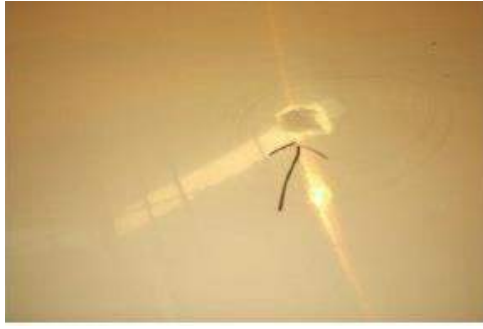
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## ***Introduction***

This leaflet is meant to help the manufacturers in the repairing of commercial vehicle bodies.

## ***Summary***

### **1. Repairing procedure for small blemishes**



### **2. Repairing procedure for major blemishes**



### **3. Repairing procedure for anti-slip floor**



### **4. Repairing procedure for panel edge delamination**



# **1. Repairing procedure for small blemishes**

*(Scratches, small gelcoat cracks, small impacts...)*

## **Required products:**

- Thickened and pre-accelerated gelcoat
- Polyester film
- Solvent
- Catalyst (do not forget to protect your eyes, and wear gloves)
- Wax



## **Repairing:**

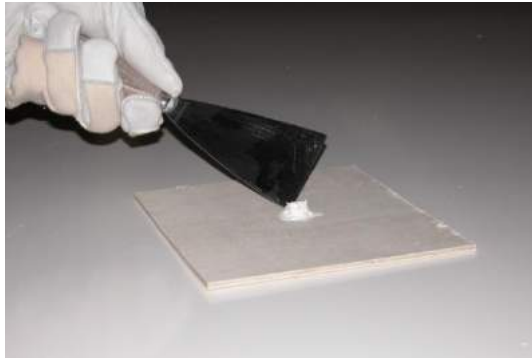
1. Wax and shine the surface to be repaired (the wax helps to stop any surplus gelcoat sticking on the surface around the area of the repair).



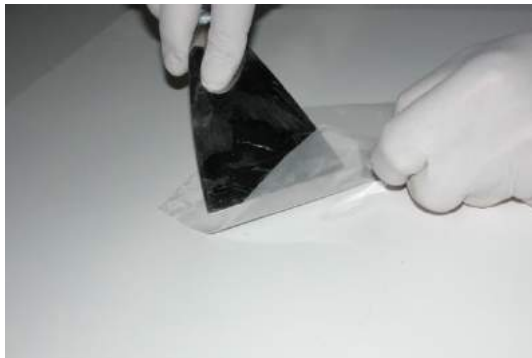
2. Rub down the area around the surface of the fault, ensuring that the edges are smooth and the whole area is dust free.



3. Prepare the gelcoat: one button of gelcoat and 4 or 5 drops of catalyst and mix carefully.



4. Apply the mixed gelcoat on the damaged area, and lay polyester film over the area, then level the film and gelcoat out with a flat scraper.



5. After the gelcoat is hardened, take the polyester film off, clean with a solvent and wipe off the excess of gelcoat.



## **2. Repairing procedure for major blemishes**

*(Cracks until the core material, deep impacts..)*

### **Required products:**

- Sander
- Hot air blower
- 300g/m<sup>2</sup> woven roving and 450g/m<sup>2</sup> CSM
- Polyester resin
- Polyester mastic
- Air bubble removing roller
- And also products for small blemishes



1. Grind down an area of about 70 mm in circumference around the area to be repaired ensuring that the core of the panel is revealed.



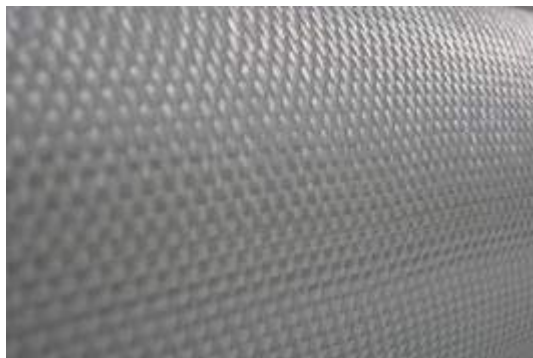
2. Grind down in a slope about 30 mm around the first area.



3. Dry the core if necessary.



4. Impregnate with resin, and then apply a 300 g/m<sup>2</sup> woven roving glass against the core, over the 70 mm.





5. Impregnate again with resin, and then apply a 450 g/m<sup>2</sup> chopped strand mat glass over the whole area of the repair (100 mm).



6. Impregnate with resin.



7. Equalise and roll out the air bubbles.



8. After the area of the repair has hardened, grind down in order to obtain a flat surface.



9. Prepare the polyester mastic.



10. Cover and fill up the area with polyester mastic.





11. When hardened, rub down with a fine sheet of wet and dry in order to obtain a good finish.



12. Finish with a coat of paint.



### **3. Repairing procedure for anti-slip floor**

#### **Required Products :**

- Polyester mastic
- Catalyst (do not forget to protect your eyes, and wear gloves)
- Wedge
- 1 weight
- Flat scraper
- Acetone



#### **Repairing :**

1. Dust off without scratching



2. Position the mould



3. Mark the moulds position over the area to be repaired



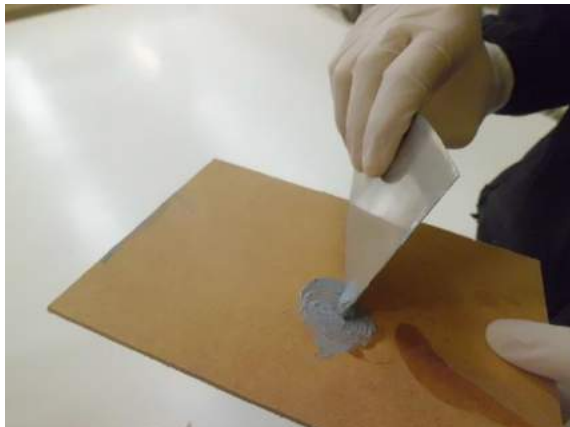
4. Prepare the required amount of mastic



5. Add one « drop » of catalyst (approximately 2%)



6. Mix well



7. Put the required quantity for the reparation, without exaggeration



8. Renew the operation according to the number of repairs to be made



9. Position the mould using the markers you have made



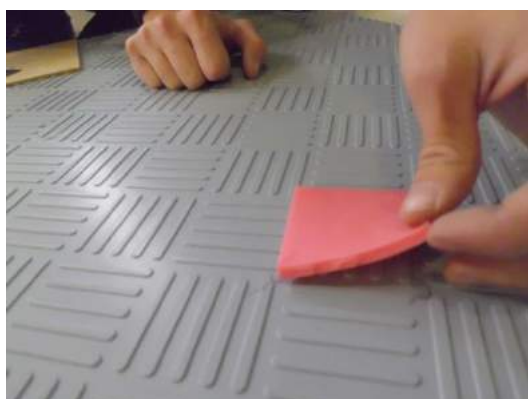
10. Place a piece of material (Wood/Heavy duty polystyrene/foam)



Plus a weight (approximately 1 to 2 kg)



11. After good polymerization (after several hours), remove carefully the mold



12. You can scrape off excess with flat scraper and some acetone if necessary





## 4. Repairing procedure for panel edge delamination

### Demonstration on a panel with delaminated edge



#### Necessary material :

- Fiberglass
- Accelerated polyester resin
- Peroxide (catalyst)
- Spatula
- Clamp
- 2 rests of panels or any boards



1. Pour the fiberglass pieces into the accelerator polyester resin

*(Warning: amount of resin to be gauged according to the repairs to be made. If you have several, do not use the full amount of resin at once, as it has a limited lifetime)*



2. Mix to obtain a homogeneous mixture



3. Pour in the peroxide (between 1.5% and 2% maximum) in the resin + fiberglass mixture and mix



To reach this result :



Use a spatula, protect the floor from any excess resin fall.

- Put the mixture to the delaminated parts with the spatula. Well soak the delaminated area with resin.



- Once the mixture has been applied, take 2 pieces of panels or boards and place them above and below the panel to protect it from the clamps.





6. Put on a first clamp and do not remove the excess resin as shown in the photo below



Put a second clamp in order to have 2 on the edges of the panel, tighten.



7. Remove the excess of resin from the panel core with the spatula



Once the resin has hardened (After about 1 hour), remove the clamps.



8. Conclusion: Before and after repair



**Caution :**

*Beware by the handling of dangerous materials such as solvents. Please respect the safety recommendations of the manufacturer of these products.*



*We are certified to ISO-9001*