metal bonding system

Polymix metal bonding system is an innovative system to glue metal pannels. Specifically designed for the Automotive aftermarket can easily replace the traditional spot welding technology.

Bonding has many advantages vs welding:

- No need to remove internal panels and rubber gaskets
- No need to re-shape the metal deformed by the welding heat
- No need to grind the welding spots
- No need to disconnect the elctronic system of the car as with tradition welding
- No need of rust protection primer on the bonded area
- No needs of sealers because Polymix Metal Bond is a self sealing adhesive

Products range:

Metal Bond 20'

Small metal panel adhesive.
Exceptionally strong urethane adhesive for bonding small steel parts, such as fenders and quarter pannels where a 20 minutes working time is needed. Bond or declamp time is 4 hours (use heat @ 60° C to reduce declamping time to 1 ½ hours). Lifetime guarantee.

Properties:

Working time: 20 minutes
Bonding time: 4 hours
Full curing time: 24 hours

Metal Bond 60'

Large metal panel adhesive.
Excellent urethane adhesive for bonding large steel panels, such as quarter panels and roofskins, where 60 minutes working time is needed. Bond or declamp time is 8 hours (use heat @ 60° C to reduce declamping time to 2 ½ hours). Lifetime guarantee.

Properties:

Working time: 60 minutes
Bonding time: 8 hours
Full curing time: 24 hours

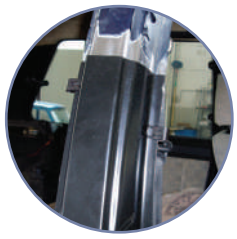
Application guide:

STEP 1

- Remove the damaged panel and grind down the spot welds.
- Use a prep disk to remove old residues (sealant, foam, other) and sand down to reach the bear metal.
- Sraighten the flange to assure the contact between panels along all the overlapping area and to allow the adhesive to flush trough.
- With a flanging clamp prepare a flange (2-3 cm. Depth, when possible) all along the bonding area.

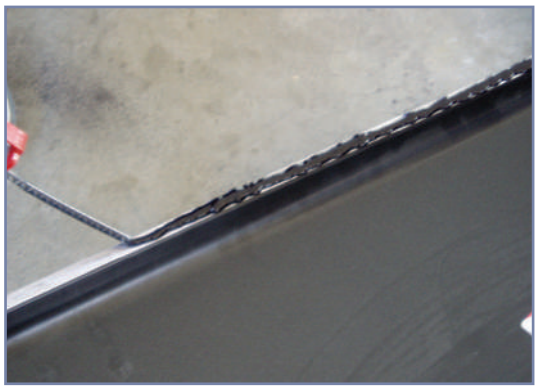
STEP 2

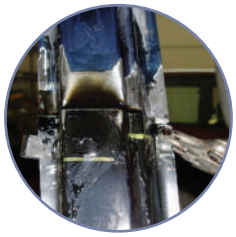
- Cut the replacing panel leaving an overlap of 2-3 cm. The bonding area should match the flange of the frame.
- Fit the panel, without the adhesive, to ensure a proper fit of the panel after the adhesive is applied.
- Remove all the coat with a prep disk from the bonding areas of the panel.



STEP 3

- Apply Polymix Metal Bond 20 or 60 on the panel, spread it all over the bear metal and leave a thickness of 2 - 5 mm of adhesive.
- Apply the adhesive on the flange of the frame, be sure to spread it all over the bear metal and leave a thickness of 2 - 5 mm of adhesive.
- Put the panel on the frame and press it, keep a thickness of 2 to 5 millimeters of adhesive between the panel and the frame.
- When repositioning, only slide the panel, never lift and separate the panel from the frame.
- Apply clamps assuring not to much distance among clamps (maximum 30 centimeters), in areas with strong mechanical resistance clamps must be applied every 10 centimeters.
- Ensure clamps don't squeez all the adhesive between the panel and the frame; ALWAYS LEAVE 2-5 MILLIMITERS OF ADHESIVE BETWEEN PANEL AND FRAME.



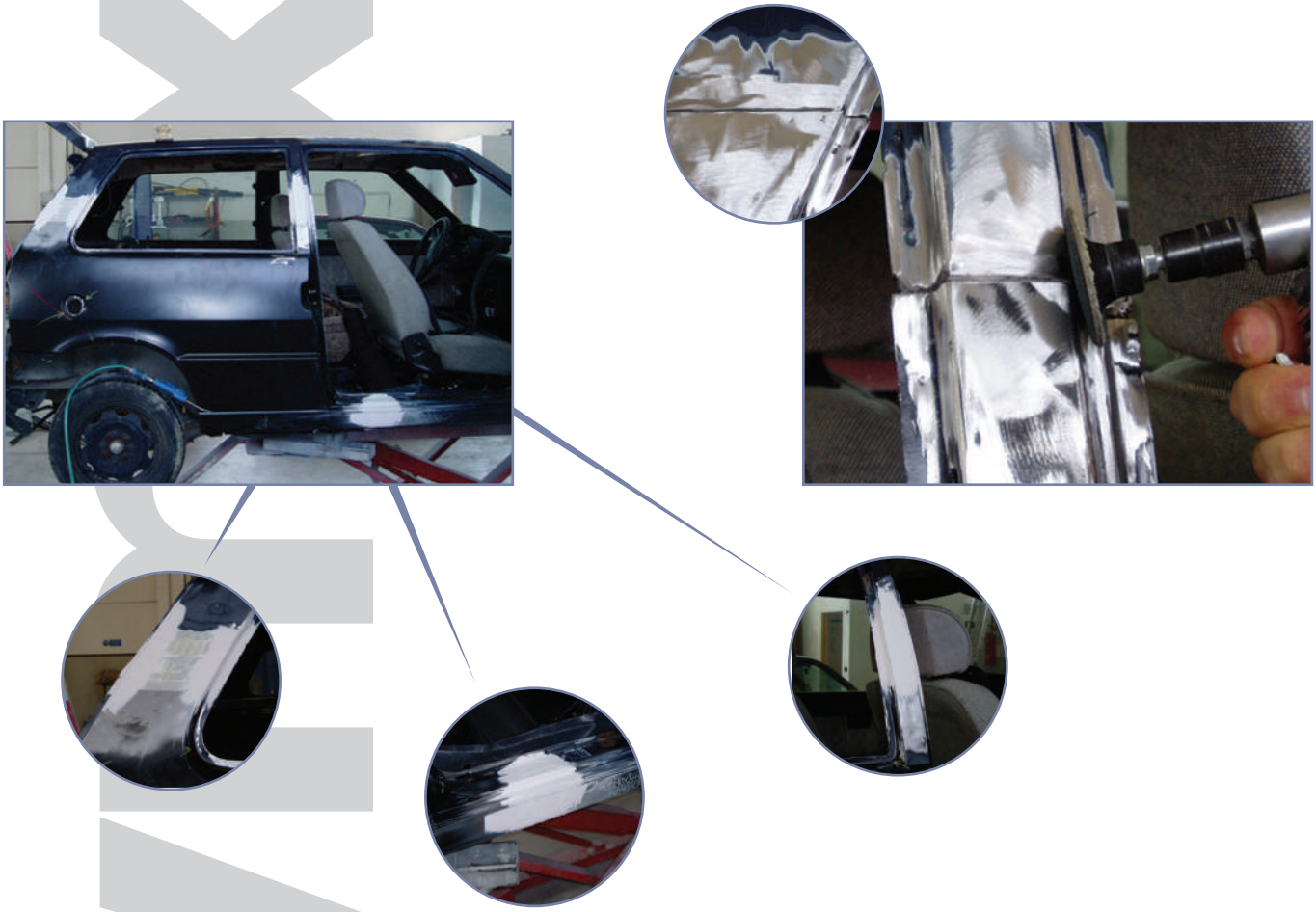


STEP 4

- Remove all the adhesive flowing out from between the panel and the frame.
- Declamping time can be accelerated by using infra red heaters or with the use of the paint booth; Heating temperature can be between 60 and 70° C for 30 minutes, allow to cool down for 1 hour before declamping. At room temperature (23° C) allow the both Polymix Metal Bond 20' and 60' to cure for, at least, 4 and 8 hours before removing the clamps. Temperature can influence the curing. Colder temperatures require more time for the adhesive to cure. Minimum temperature for curing is 20 °C.

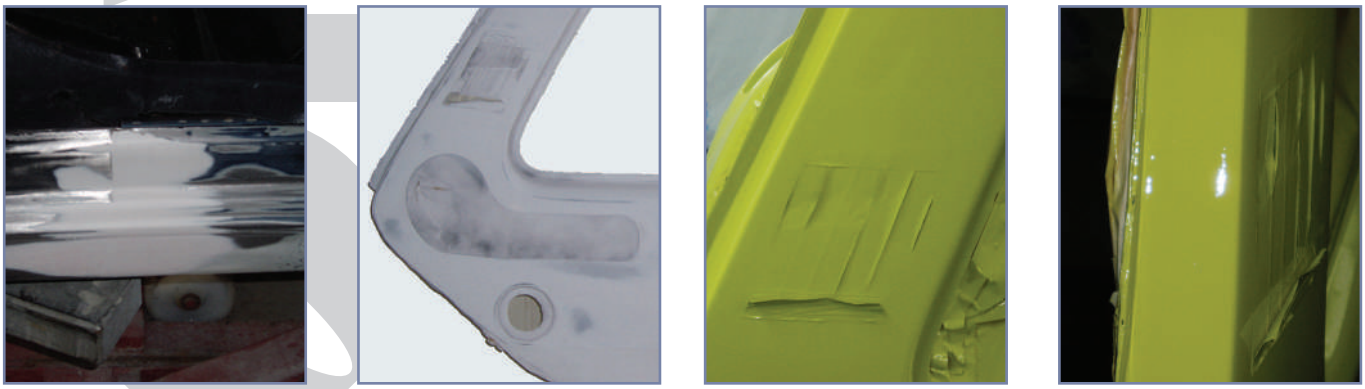
STEP 5

- Grind away all the adhesive in the areas where body filler must be applied leaving an area of 15-20 cm of bear metal on both sides of the seam
- Fill the seams with metal body filler. NEVER APPLY BODY FILLER OVER POLYMIX ADHESIVES.



STEP 6

- Finish and paint as recommended by paint manufacturer. When accelerate the curing with infra red lamp or spray boot BE CAREFUL NOT TO HEAT THE METAL OVER 80 °C. Adhesive is sensible to the temperature, over 120 °C adhesive would melt.



Inchimica Division of Prospero srl
Via Emidio Villa 17, 42124 Reggio Emilia - Italy
Tel. +39 0522 506161 inchimica@imm-group.net
ww.inchimica.net