

## Recommendations for soft soldering of Prelaq PLX

By soft soldering, hot-dip galvanized steel sheet can be jointed together. By heating the sheets to 180- 230°C and adding a soldering material of tin/lead, the sheets are jointed to a water tight and strong overlap joint.

The paint coating has to be removed on both surfaces before the soldering work.

The material that is to be soldered, is built up of a steel core with a layer of zinc coating (0,025 mm) and a paint coating (0,05 mm). On the reverse side the PLX material has a zinc coating and a thin paint coat (0,010 mm)

### Material

Paint remover, Chemical  
Prelaq Touch-Up Paint  
Cleaning detergent  
Water  
Scotch Brite sponge  
3M Sanding sponge



Picture 1. Material for removing paint, cleaning and painting

### Soldering equipment

Soldering material of tin/lead (50/50 or 60/40)  
A zinc friendly Flux, such as, Zin 7 Flux  
Burner with copper bit for soft soldering  
Paint brush



**Picture 2. Equipment**

## **Working stage 1 – Removal of the paint**

Before soldering, the paint must be removed from both surfaces that should be jointed.

The paint layer can be removed in two ways: By using a chemical paint remover or by carefully abrade away the paint with a special Strip Disc. By using the later method care should be taken not to abrade the thin zinc layer. The first method is shown here.

### **Remove the paint - chemical method (method 1)**

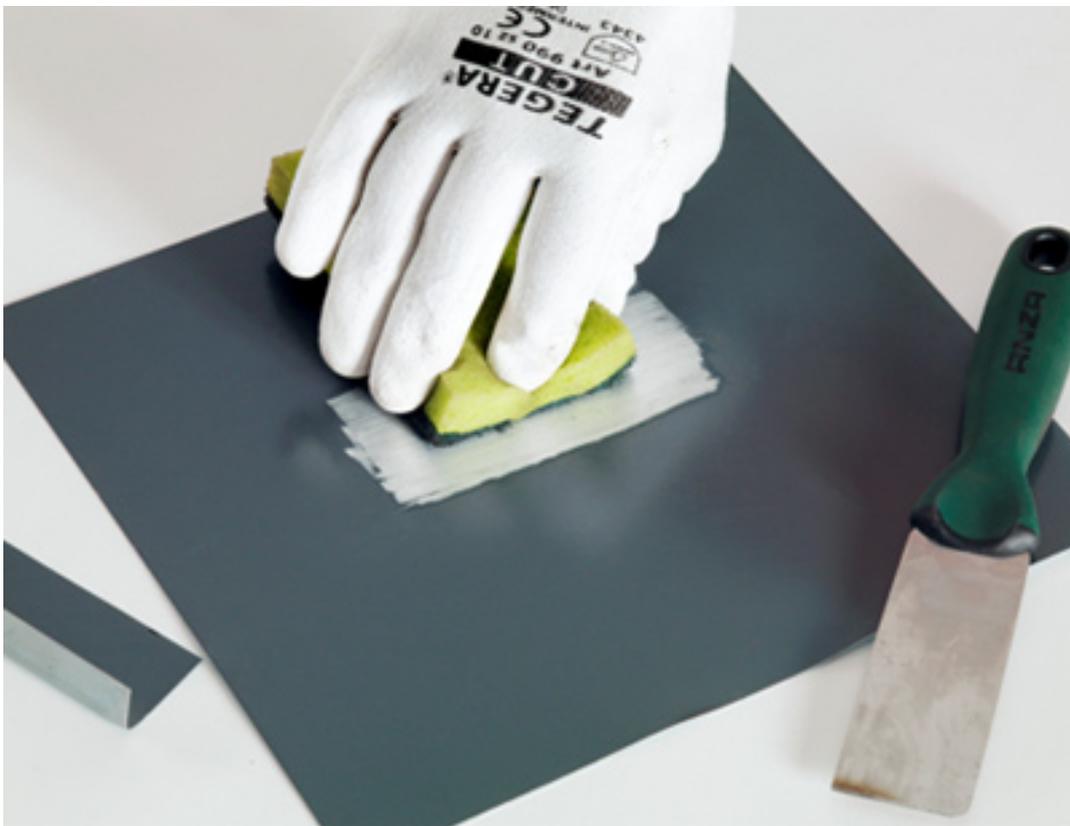
1. Cover the surfaces that should be soldered with the Paint remover.
2. Wait for approx. 20 minutes
3. By using the spatula (sharpened), remove the paint.
4. Use a Scotch Brite sponge to remove the remaining paint



**Picture 3. Cover the surface with a Paint Remover**



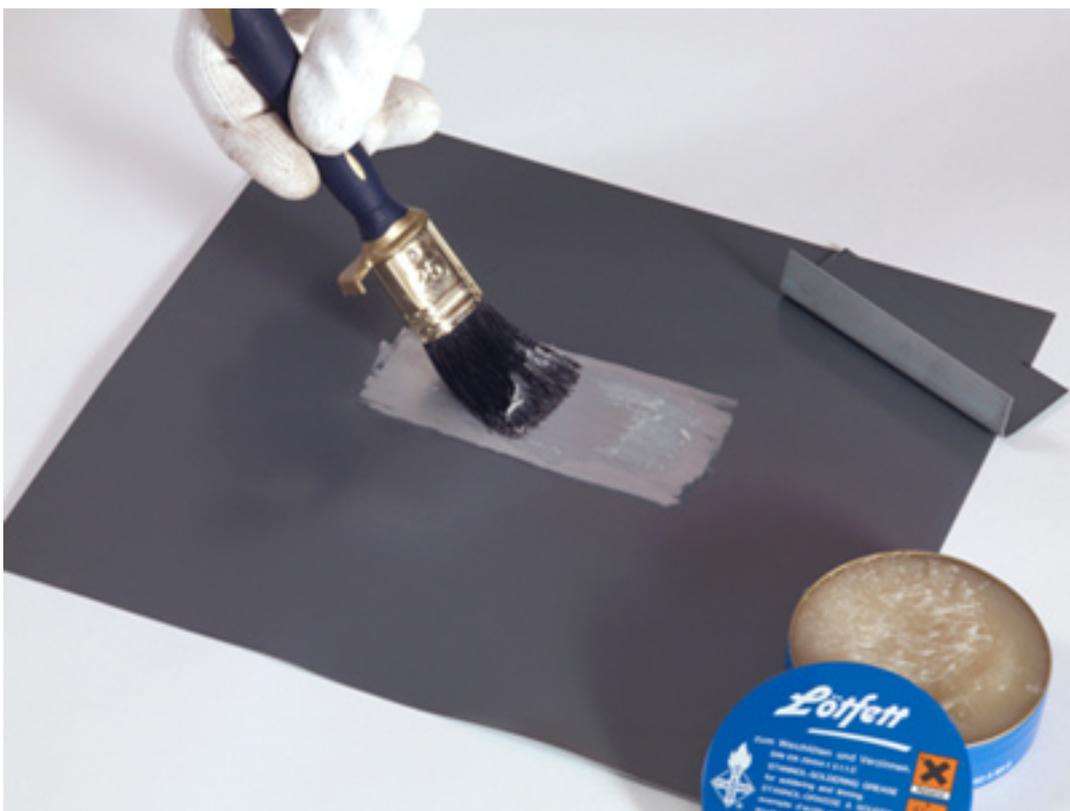
**Picture 4. Remove the paint with a spatula**



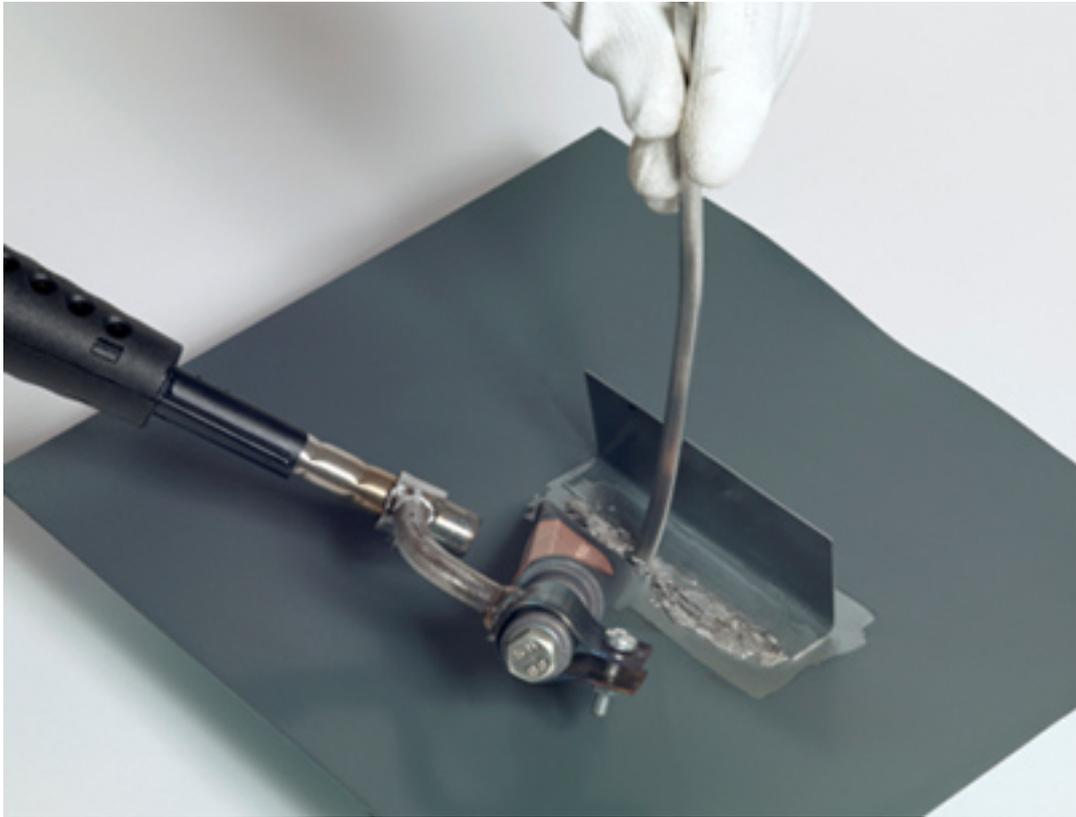
Picture 5. Remove remaining paint with a Scotch Brite sponge

## Working stage 2 – Soldering

1. Use a paint brush to cover the cleaned surfaces that should be jointed with the flux. The flux makes the solder to flow out.
2. The clean and prepared surfaces should be put together with an overlap of at least 10-20 mm. See that there is no gap between them.
3. By the help of the burner with copper bit, heat surfaces to receive solder along the overlap edge. The solder will penetrate and fill the gap between the sheets.



Picture 6. Cover the surfaces with flux



**Picture 7. Soldering along the joint**

### **Working stage 3 – Cleaning and painting**

Before painting, the surface should be cleaned with water and a mild wash detergent. When the surface is dry, paint the unpainted parts with a brush using Prelaq Touch-up Paint.



**Picture 8. Painting of the joint**