WELDY
Hot Air Tools

Hot air tools
for Car repairing

more fun at work!

WELDY PRO • WELDY PLUS • WELDY PLAST

intelligent terminal display with memory function for reproducable results from the work

Repair welding applications

more fun at work!

- Ergonomic, well balanced and light hot air tools for effortless working
- Function programmes containing standard values for temperature and airflow make processing plastics easier for the operator
- Reproducable working results thanks to memory function and digital temperature display
- Stand-by for eco drive

Pendulum welding PP-EPDM bumper

Pendulum welding PP housing

Pendulum welding ABS motorcyclefairing

Repair welding on a PVC tarpaulin

Different applications with WELDY hot air tools

Shrinking of a shrink tube

Drying of varnish

Loosening of tight bearings and gear wheels

Forming of a trim strip

Removal of under-floor sealant

Basic rules for welding plastics

The majority of plastics used are thermoplastics, which as a rule, are suitable for plastic repair without any difficulties. The following basic rules should be observed.

1. Identifying Plastic

Check whether the plastic part to be welded has a plastic identification code. If the code is missing or unrecognisable, easily conducted tests can be helpful:

Floating test in water
Take a small piece of plastic from the part to be repaired and test if this float on the water surface (PP-EPDM, HD-PE, PP) or sink (PVC-U, PVC-P, ABS, PC).

Surface condition
The surface of plastics can be differentiated from horn-like (PVC-U, PVC-P) to waxy (PP-EPDM, HD-PE).

Adhesion test with welding rod
Heat up the welding rod, with is marked with the material identification code, and the plastic part by applying hot air. Press the welding rod onto the plastic part to be welded. If the cooled down rod stays firmly in place or can only be pulled off with difficulty, both plastic materials are the same. Welding rods made of PP-EPDM, HD-PE or PP can be stringy when pulled off.

2. Four basic rules for plastic welding

Weld like with like material
Only materials which are the same can be welded, i.e. PP with PP. A weld of PP with PVC or other plastics is not possible!

Correct temperature
The plastic must be heated up until it is plastizied (doughy). The function programme will help you to choose the right temperature matched to the material.

Even pressure
When welding with rods, the pressure is applied by pressing on the welding rod. For overlap welding of films and tarpaulins, the necessary pressure is applied with the help of the pressure roller.

Constant welding speed
To achieve a good weld, an even working speed should be maintained.

Welding with rods: Repair welding of cracks

Operating steps:

Function programme: Choose according to the material code
Accessories: Welding nozzle
Note: Choose appropriate welding rod. The material of the welding rod and the part to be repaired should be the same.

Repair welding a plastic tank

1 Sand the surrounding area to remove dirt and remnants of paint. Drill a hole at the end of the crack to prevent it spreading.

Note:
The welding groove should be clean and free of grease. For PP and PE materials, the oxidation layer on the surface should be removed. (Scraping, sanding, grinding).

2 Cracks should be drilled out to achieve an even welding groove. Angle 60°-90°.

Note:
To stabilise the crack, a cross weld can be added on the under side.

3 Chamfer the end of the welding rod.

4 At the start of the welding process heat up the welding rod and apply pressure to the welding rod. Heat up the welding rod and the part to be welded evenly by using a pendulum motion and press the welding rod into the plasticised welding groove.

Overlap welding: Repair welding of films and tarpaulins

Operating steps:

Function programme: foil
Accessories: Overlap welding nozzle and pressure roller
Note: Cracks and holes can easily be repaired by welding on a patch

Choose a patch large enough to cover the hole well.

When overlapping films and tarpaulins, the following basic rules apply:

- Weld like with like material
- Even pressure
- Correct temperature
- Constant welding speed

1 Cut the patch to shape, round off the corners

2 Fix the patch

3 Weld the patch on:
Go around the patch with the overlap welding nozzle to the width of nozzle and apply even pressure with the pressure roller