

The background of the entire page is a close-up photograph of a robotic welding arm. The arm is primarily black and silver, with a prominent copper-colored welding torch at the end. The torch is positioned over a light-colored, flat surface, likely a metal plate, which has some faint white markings. The background is slightly blurred, showing a workshop environment with various tools and equipment.

INSTRUCTIONS **REPAIR**



BOUNDLESS POSSIBILITIES



CONTENTS

Contents of the repair set	5
Scratch repair	6
Hole repair	7
Safety data sheet	11
Tie hole repair	12
Rivet replacement	13

Please Note:

This quick user guide contains the most important information and hints on the repair of alkus® panels. The original manufacturers' operating instructions for the hot air welder, the paint remover and the drill are enclosed in the repair set. Please make sure to read these instructions before starting operation and to observe the specified instructions for safety and use. This will protect you and avoid damage of the equipment. Only genuine spare parts may be used. When using our products the federal, state and local codes and regulations must be observed.

Sales & Marketing

alkus AG
Gewerbeweg 15
9490 Vaduz
Liechtenstein
Phone: +423 236 0030
E-Mail: mail@alkus.com

www.alkus.com

Research & Development

alkus GmbH & Co. KG
Kunststoffverbundsysteme
Im Auchtart 8
72186 Empfingen
Germany
Phone: +49 748 598 389910
Fax: +49 748 598 389999
E-Mail: mail@alkus.com

www.alkus.com

Sales & Marketing USA

alkus North America Inc.
400 Oser Avenue, Suit 1650
Hauppauge, NY 11788
USA
Phone: +1 616 490 4174
E-Mail: mail@alkus.com

www.alkus.com

CONTENTS OF THE REPAIR SET



Nr. Description

- | | | | |
|----|--|----|---|
| 1 | Complete alkus [®] repair set | 14 | HM-cylinder head drill Ø 35 |
| 2 | alkus [®] Explorer Case | 15 | alkus [®] scraper |
| 3 | Extruder and associated tools | 16 | Side cutting pliers |
| 4 | Quick welding jet | 17 | Depth gauge 6 mm |
| 5 | Paint stripper | 18 | Welding wire PP, 20 m |
| 6 | Spare blades for paint stripper | 19 | Repair plug 23 |
| 7 | Drilling machine | 20 | Repair plug 20 |
| 8 | Drill stand | 21 | Repair plug 17 |
| 9 | Picard claw hammer | 22 | Repair patch Ø 35 |
| 10 | Plastic hammer | 23 | Tool to remove rivets and replacement head |
| 11 | Protective gloves H+ | 24 | alkus [®] AS-conical tube Ø 29/24 L=103 mm |
| 12 | Protective glasses classic | 25 | alkus [®] Alu-cone Ø 20/22 L=70 mm |
| 13 | Special Step drill Ø 35/25 | | |

SCRATCH REPAIR

Frequent site use inevitably leads to damage to the facing. The alkus® „long-life repair“ provides for a repair with identical material and without any loss of quality.

The damaged areas are prepared for repair by removing soilings and formwork oil residues with a paint scraper.



Protrusions of nail holes and minor soilings can also be removed quickly and easily with the paint scraper.



By use of the extruder (or alternatively hot air welder) the melted polypylene is applied to the damaged area.



Protruding material is planed with a paint remover ...

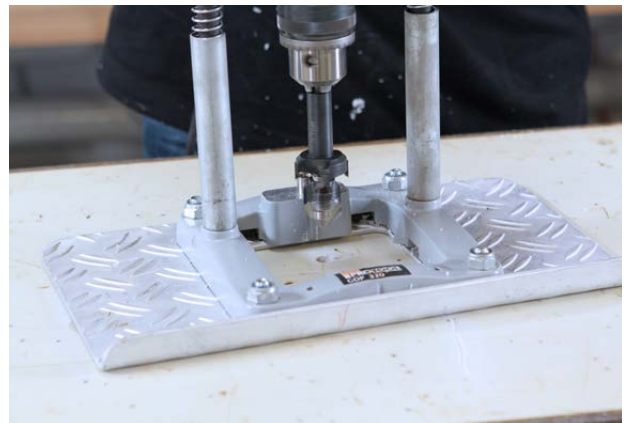


... and a paint scraper.



REPAIR OF HOLES

Holes with a diameter of up to 30 mm can be repaired with a plug. Therefore the hole is drilled out with a step drill. Important: Adjust drilling depth to 6 mm.



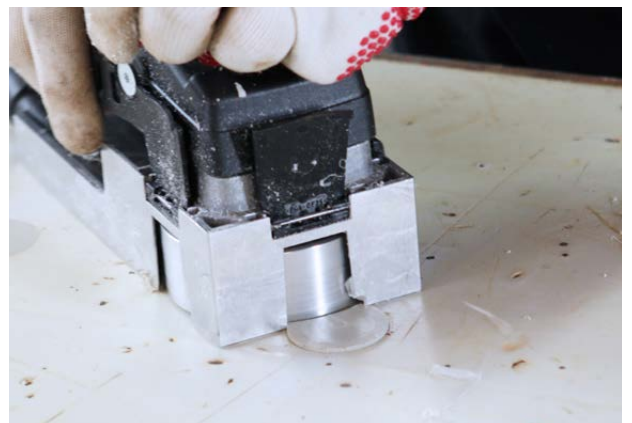
Insert repair plug and ...



... drive it into the hole with a plastic hammer.



The remaining protrusion is removed easily with a paint remover and paint scraper. The plugs are made of polypropylene, just like the panel itself. Therefore future damage in the area of the plug can also be repaired easily using the extruder.

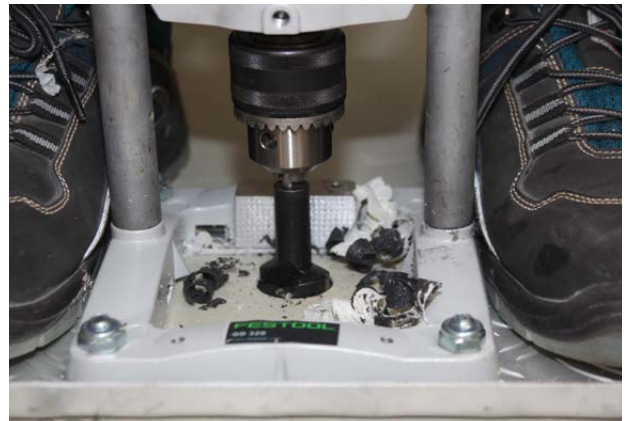


REPAIR PATCH Ø 35

Drill hole at damaged area by using the drill stand and a cylinder head drill Ø 35. Check drilling depth (6 mm) with depth gauge.



Insert cylinder head drill bit Ø 35 into drill. Check drilling depth (6 mm) before drilling.



Insert repair patch Ø 35 (thickness 6,5 mm) with chamfer faceup.

Important:

Repair patch is protrudes slightly.



Insert repair patch (see page 9) and drive it into the hole with a plastic hammer.



Weld by using extruder (alternatively hot air welder).



Plane surface at damaged area by using the paint remover.

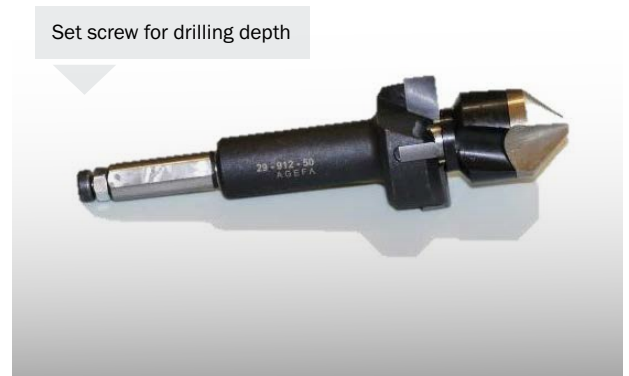


If required, use the paint scraper to achieve a smooth surface.



SAFETY DATA SHEET

Special step driller, diameter 35/25 mm
with setscrew for drilling depth



HM cylinder head drill bit, diameter 35 mm
setscrew for drilling depth



Following safety information obtain for the items listed above:

- Use safety glasses when working with these tools.
- A hex screwdriver 3 mm is needed to adjust the drilling depth.
- Ensure the drill piece is centralised in the chuck.
- When fixing the drill piece, ensure the chuck is fully tightened.
- The tool should be used with max. 2500 rotations per minute and with max. 1.2 m/min. feed motion.

Repair plug 17
(for alkus[®] solid plastic panel AL12,9 – AL17)

Repair plug 20
(for alkus[®] solid plastic panel AL18 – AL20)

Repair plug 23
(for alkus[®] solid plastic panel AL21 – AL27)

Repair patch, diameter 35 mm

Repair patch, diameter 51 mm



TIE HOLE REPAIR

As the core and surface of the panel are the same material, tie hole damage can be repaired successfully using identical welding material.



The aluminium repair cone is inserted into the tie hole as a shaper ...



...and afterwards the damaged area is filled by using the extruder (alternatively hot air welder).



After the repair cone is removed, the repaired area is smoothened with a paint remover and paint scraper.



The result: a fully operative tie hole!



REPLACEMENT OF RIVETS

Punch rivets

Remove damaged rivet head (drill out).



Drive rivet with tool to remove rivets into the frame ...



... then remove rivet by using a hammer.



Insert new rivet and fix it by using a pneumatic or electric rivet gun.

Important:

Observe rivet length:

Rivet 5x20 for alkus® solid plastic panels 6 – 10 mm thickness

Rivet 5x25 for alkus® solid plastic panels 11,5 – 17 mm thickness

Rivet 5x33 for alkus® solid plastic panels 18 – 23 mm thickness



NOTES

REMEMBER EVERYTHING

This image shows a full page of blank graph paper. The grid consists of thin, light gray horizontal and vertical lines that intersect to form small squares across the entire surface. There are no margins, text, or other markings on the paper.

Sales & Marketing

alkus AG
Gewerbeweg 15
9490 Vaduz
Liechtenstein

Phone: +423 236 0030
E-Mail: mail@alkus.com

www.alkus.com

Research & Development

alkus GmbH & Co. KG
Kunststoffverbundsysteme
Im Auchtart 8
72186 Empfingen
Germany

Phone: +49 748 598 389910
Fax: +49 748 598 389999
E-Mail: mail@alkus.com

www.alkus.com

Sales & Marketing USA

alkus North America Inc.
400 Oser Avenue, Suit 1650
Hauppauge, NY 11788
USA

Phone: +1 616 490 4174
E-Mail: mail@alkus.com

www.alkus.com