

CARAVAN

REPAIR SYSTEMS



HBC *system*[®]

Innovative - Professional - Profitable

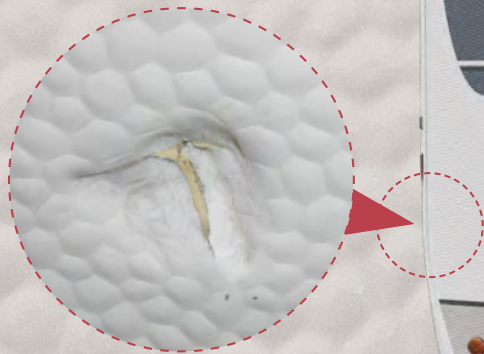


SYSTEM E1

CARAVAN AND MOBILE HOME REPAIR SYSTEM

from HBC system
World first!

Why replace entire panels because of a minor dent



With the HBC patented Caravan Repair System for the first time panels on caravans, motorhomes and trailers can be restored to their original condition, quickly and cost-effectively.

Traditionally damaged panels, normally the whole side of the vehicle or caravan, would have to be replaced which is hugely expensive and very time consuming for the insurer, the repairer and the owner. Now specially designed vacuum equipment, templates and unique mouldmaker provide a perfect match to original smooth or contoured surfaces.

For the caravan & leisure market HBC has successfully designed and developed a specialist repair process which has been rigorously tested and now features a world-wide patent. This system is capable of repairing major damage on aluminium panels.

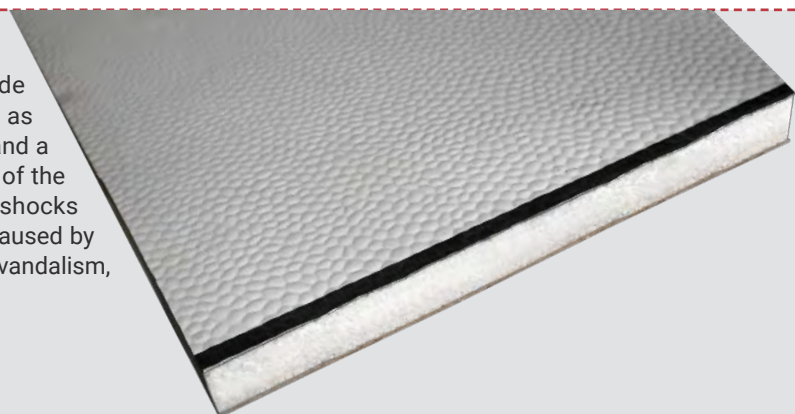


Press Review

“Ingenious system for repairing aluminium plates on mobile-homes, caravans, trailers”



Most caravans, motorhomes or trailers feature panels made from a sandwich design with a layer of hard plastic or wood as the innermost layer, an insulating foam panel in the middle and a textured aluminum plate as the outer layer. The primary task of the structure is to make the aluminum sheet more resistant to shocks and to compensate for minor irregularities. Damage can be caused by extreme weather conditions, hail etc. or incidental accidents or vandalism, on campsites, during transit or at home.





TYPE OF REPAIRS

Dents, deep scratches and holes in contoured sidepanels on Caravans / Mobile homes.



MAX. SIZE OF REPAIRS

70 x 18 cm

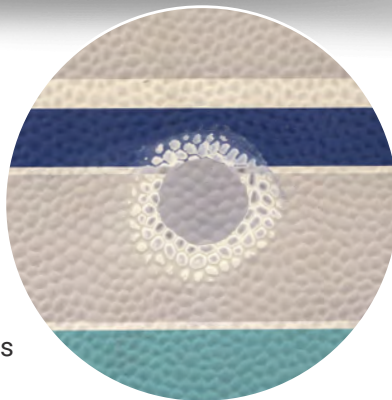


TIME OF REPAIRS (AVG.)

20 min.
depending on repair type & skill level

How does the Caravan Repair System work?

With the specialist repair process an exact copy of the surface design or pattern is taken (on the undamaged part of the panel) using the patented vacuum tool, templates and mouldmaker.



The mould can then be transferred to the damaged area where the special E-Filler is injected, leaving a surface structure which corresponds exactly to the original panel. After the material hardens the borders are sanded and the whole repair area is powder blasted using a specialist granulate E-Powder. The repaired area can then be primed and painted.

International users, approvals, tests



Allianz
AZT Allianz Zentrum Technik

EUROGARANT
AutoService AG



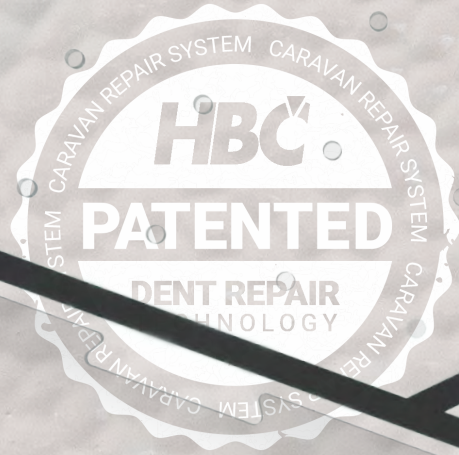
Thatcham
The Motor Insurance Repair Research Center



KTI, Germany
Kraftfahrzeug Technisches Institut.

SYSTEM E1

CARAVAN REPAIR TWIN VACUUM



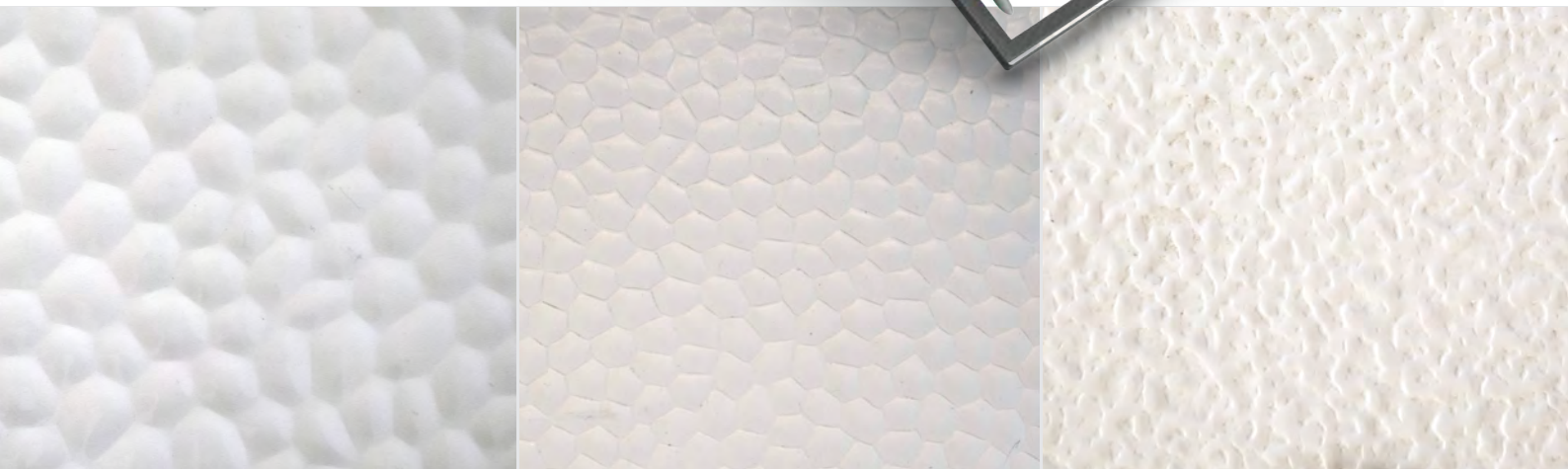
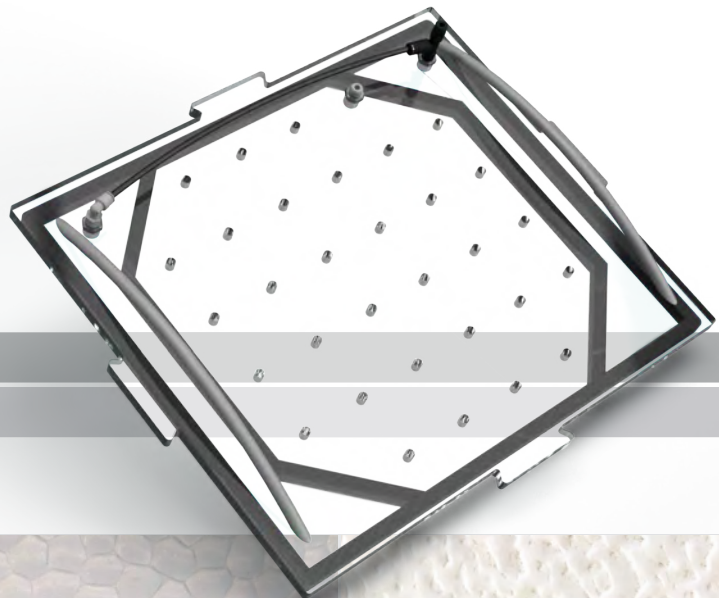
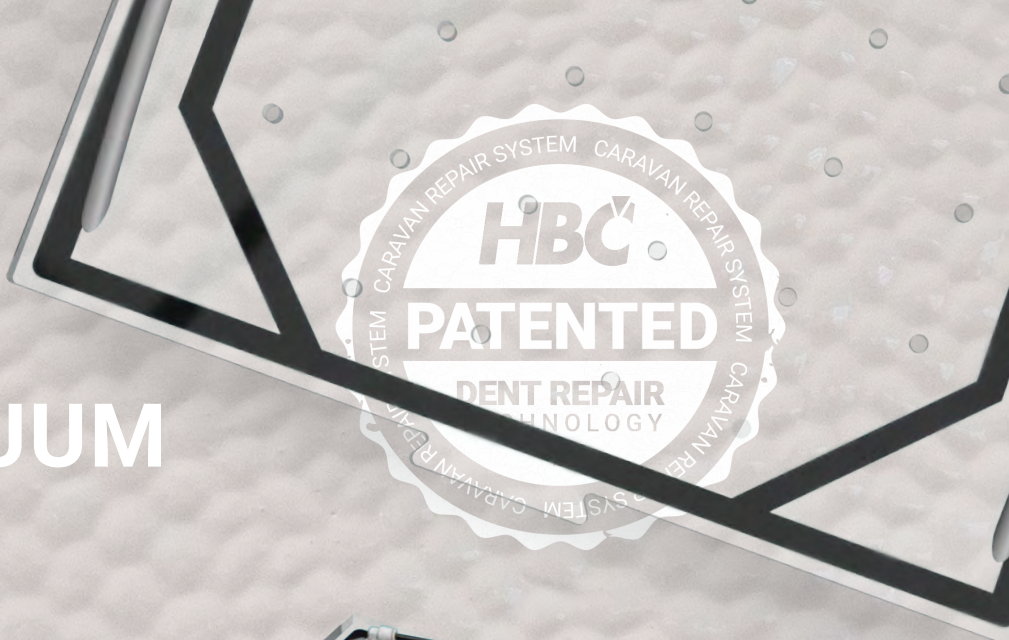
The all-new Twin-Vacuum System is capable of restoring finer and smoother structured surfaces, with even faster repair times and greater finish.

The Twin-Vacuum system essentially works by adding an additional vacuum chamber within the tool-plate. The two separate chambers allow the operator to fix the plate on the structure and then apply the second chamber, to make the impression with the E-filler virtually indistinguishable from the existing surface.

- ✓ **Fast, high-quality repairs**
- ✓ **Micro/fine structure repair**
- ✓ **Gelcoat and glass fiber repair**

The system also works on relief panels on gates, furniture, garages, buildings and vehicles or any surface of a similar design.

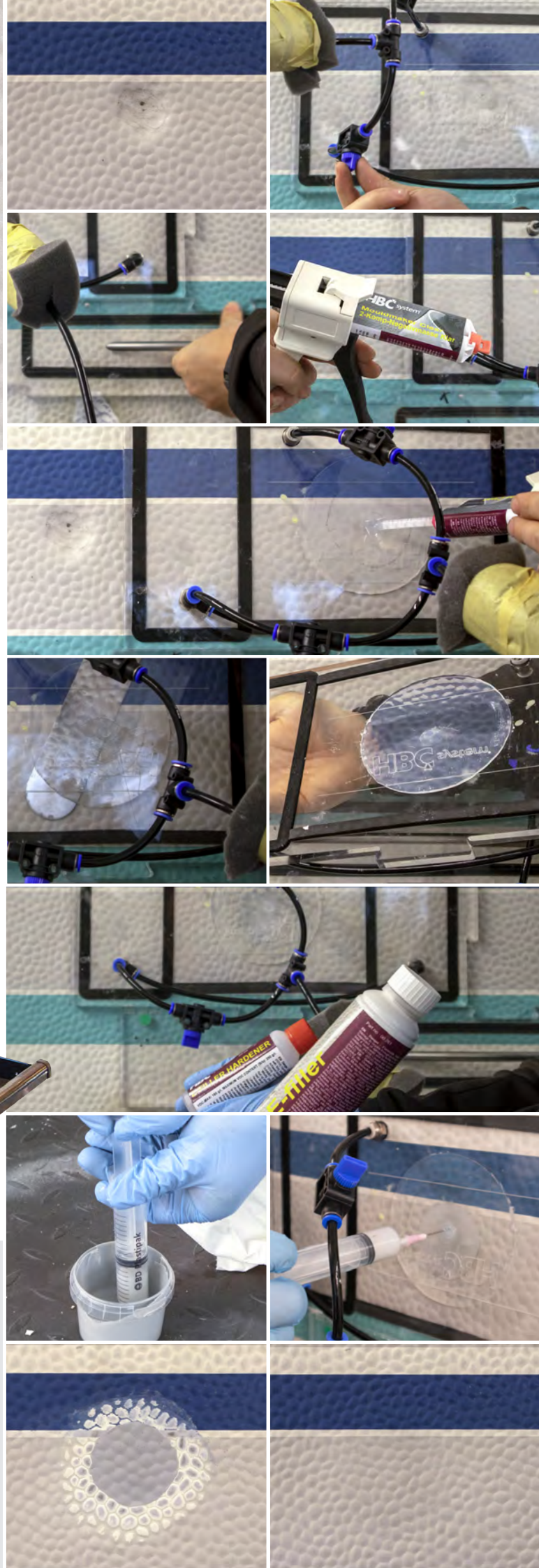
TWIN VACUUM



Designed for restoring caravans, motor-homes and trailers plus other structured aluminum materials and surfaces.

Capable of restoring panels from the following caravan brands, all years and models

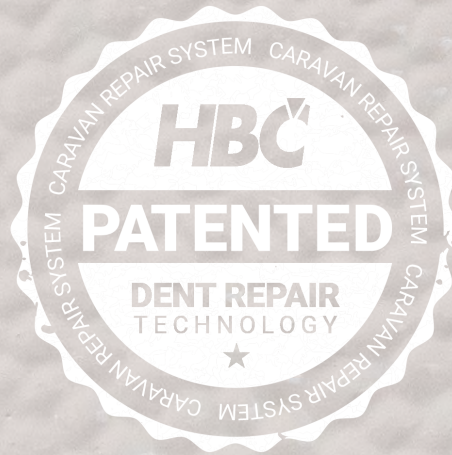
- | | |
|--------------|---------|
| ✓ Adria | ✓ Fendt |
| ✓ Alaria | ✓ Hobby |
| ✓ Bessacarr | ✓ Hymer |
| ✓ Buccaneer | ✓ Knaus |
| ✓ Bürstner | ✓ LMC |
| ✓ Caravelair | ✓ Lunar |
| ✓ Dethleffs | ✓ Swift |



10 YEARS
WORLDWIDE WARRANTY*

* Having been certified by HBC Caravan Training Academy

CARAVAN REPAIR CONSUMABLES AND ACCESSORIES



Mouldmaker & additive (50 ml)
Part no. 21

Mouldmaker is silicone-free copy material. Can be applied on top of the non-damaged structured caravan surface you want to copy. After two to five minutes, the mouldmaker is cured. Simply remove the hardened film and on the back, you will have an original copy of the structure. The hardened mould can be reused again and again for repairs on the same structured surface.



Mouldmaker Clear (50ml)
Part no. 20cl

A transparent silicone-free copy material which is easier to apply on top of the non-damaged structured caravan surface you want to copy. After two to five minutes, the mouldmaker is cured. Simply remove the hardened film and on the back you will have an original copy of the structure. The hardened mould can be reused again and again for repairs on the same structured surface.



Mixing gun for mouldmaker
Part no. 41

Mixing tips big (12 pcs)
Part no. 813



Mixing Gun for Mouldmaker Clear
Part no. 45-1

Mixing tips pink (10 pcs)
Part no. 47



Caulking/glue gun for E Filler Quick 10:1
Part no. 48

Mixing tips for E-Filler Quick (10 pcs with needle)
Part no. 763



E-Filler Quick 10:1
Part no. 19

E-filler Quick, is designed to be used with the mouldmaker for repairs on aluminum structured/textured panels and surfaces, where it is injected, leaving a surface structure that corresponds exactly to the original panel.

Fast, self-curing. No heat or light required. No harmful fumes, odorless. 5 min drying time at any temperature.



E filler (250ml) w/ Hardener (20ml)
Part no. 756

The standard E Filler is designed to be used with the mouldmaker for repairs on aluminum structured/textured panels and surfaces, where it is injected, leaving a surface structure which corresponds exactly to the original panel.

After the material hardens, the borders are sanded and the whole repair area is powder blasted using the specialist granulate E-Powder.



Pipette 3,5ml (10pcs)
Part no. 288



Mixing jar with lid
Part no. 607

E1 Gel (60 ml)
Part no. 786



E Compound (1 kg)
Part no. 229



E Powder (2 kg)
Part no. 760



E Cleaner (1L)
Part no. 755



E-Filler Thinner (250 ml)
Part no. 754



Glass pen
Part no. 770

Refill for Glass pen
(2pcs.) Part no. 771



Divider
Part no. 762



Injector (2pcs.)
Part no. 757



Needles
Part no. 758



Tool connector
Part no. 521



**2K Gelcoat Filler (0.2 Liter)
w/ hardener**
Part no. 230

Gelcoat Filler is a white 2-component polyester-based filler. For minor damage to the gelcoat layer on e.g. boats, surfboards and plastic bodies. Also works well for damage to enamel and sanitary ware.

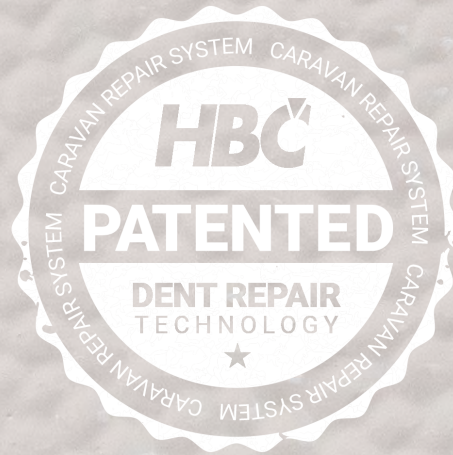


**2K Glassfiber Filler (0.18 Liter)
w/ hardener**
Part no. 231

Glassfiber filler is a 2-component, glassfiber-reinforced polyester filler. Suitable applications include the repair of rust damaged car bodies, reinforcing profiles or beams, on certain repair work on boats etc.

SYSTEM E1

CARAVAN REPAIR SYSTEM OVERVIEW



	Starter Caravan Repair System	Basic Caravan Repair System	Master Caravan Repair System <small>⊕ HAIL</small>
Maximum size of damage	✓ 3 x 3 cm	✓ 10 x 10 cm	✓ 10 x 10 cm
			✓ 30 x 60 cm
			✓ 60 x 60 cm
Structure Type	✓ Fine ✓ Coarse	✓ Fine ✓ Coarse	✓ Fine ✓ Coarse
Tools - lasercut <small>Acrylic w/ engraved markers</small>	✓ Caravan Tool / EASY FIX	✓ Caravan Tool / EASY FIX	✓ Caravan Tool / EASY FIX
Vacuum System	✓ Twin-Vacuum	✓ Twin-Vacuum	✓ Twin-Vacuum
Mould Material <small>To copy surface structure</small>	✓ Mouldmaker Clear / 10 Min.	✓ Mouldmaker Clear / 10 min.	✓ Mouldmaker Clear / 10 min.
		✓ Mouldmaker Green / 10 min.	✓ Mouldmaker Green / 10 min.
Structure Filling Materials	✓ 2K E-Filler / 2 min.	✓ 2K E-Filler / 2 min.	✓ 2K E-Filler / 2 min.
	✓ E-Filler / 20 min.	✓ E-Filler / 20 min.	✓ E-Filler: 20 min.
			✓ 2K Gel coat + Glass fiber
Repair Time (Avg.) <small>not incl. painting, hardening</small>	✓ 20 min.	✓ 20 min.	✓ 20 min.
Number of repairs	✓ 3	✓ 5	✓ 30
Warranty <small>Worldwide</small>	✓ 10 Years	✓ 10 Years	✓ 10 Years
Training (add-on) <small>Not Included</small>	✓ Online	✓ 1 Day	✓ 2 Days
System Part no.	1020	1030	1000

OPTIONAL UPGRADE

System supplied in a Trolley Tool Cabinet
Part no. 1001

SYSTEM E1

CARAVAN MASTER TROLLEY

The ultimate caravan repair installation

This all-in-one trolley contains everything a caravan specialist need to successfully repair caravans or mobile homes. It is a must for every caravan shop that requires efficiency, flexibility, and mobility.

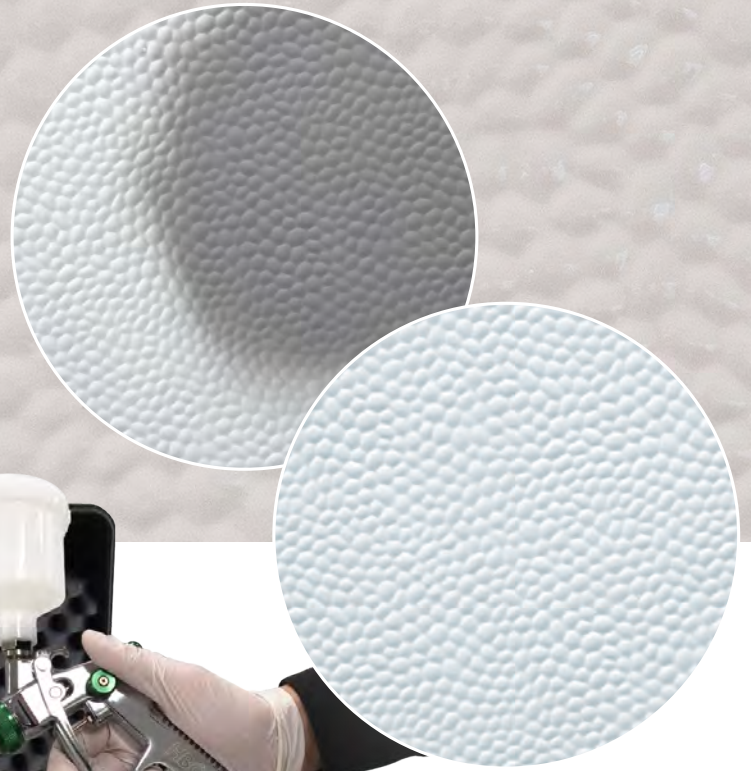
We have packaged the master caravan system in a purpose-built and heavy-duty 6-drawer steel cabinet with a worktable surface and central locking system. The trolley is fully mobile. Lockable castor wheels ensure that you are free to work wherever needed.

For built-in convenience, every drawer is designed to fit the caravan system. The drawers are lined with foam modules, tailored for easy tool layout - ensuring fast and efficient repairs, easier cleanup, and organization. With this state-of-the-art caravan trolley, you always have the right solution ready to go.



SYSTEM E1

CARAVAN SPOT REPAIR



NP1000 Caravan
Spot Repair system



Part #	Article	
NP03	Aluminium	250 ml
NP10	White	250 ml
NP26	Cedrat Yellow High	250 ml
NP30	Yellow ocre	250 ml
NP32	Organic Yellow High Coverage	60 ml
NP45	Organic Orange	250 ml
NP50	Oxide Red	250 ml
NP54	Red Ruby	250 ml
NP56	Violet	60 ml

Part #	Article	
NP59	Light Red	250 ml
NP60	Phtalo green	250 ml
NP71	Phtalo blue	250 ml
NP7512	Binder	250 ml
NP92	Black	250 ml
NP1420	Thinner	250 ml
NP9060	Hardener for NP colours	250 ml
304H	Highbuild primer aerosol	400 ml
316	Fade thinner aerosol	400 ml

Part #	Article	
552	RAL colour swatch	1
591	Paint gun	1
2900	Scale 0,01-500 gram	1
NP01	Multi color index	1
288-5	Pipette 3.5 ml.	5 pcs.
607	Mixing jar small with lid	10 pcs.
656	System box	1

Easy-to-use spot repair paint system for repairing paint damage on caravans, motor-homes and trailers.

Complete system that features 15 base colours and specialist colour mix, match formulation system using bespoke software.

The foundation of the system is 15 base colours, which can be mixed together with the included software. When the colour software is installed on your pc you are ready to start. Simple and easy!

When starting a caravan spot repair you need to ensure that you're using the right colour tone. In the system you will find two large colour indexes making it an easy job to select the correct color tone. Simply enter the right tone number into the colour mixing software and press enter - the software will provide you with the recipe to mix with the 15 base colours.

You can mix the recipe on the included mini scale. You are now ready to spray the right colour on the damage or the repaired area. After spraying the colour, spray the surface around the repair area with fade thinner, which melts the new and old paint together.



CARAVAN PAINT COLOUR SOFTWARE - grants you direct access to our entire mixing formula database. Access code and download link is included with the system. The Colour Match Software is updated yearly at no additional cost and contains all the MSDS information and safety data sheets for all paint chemicals and toners. Simple and easy!



TYPE OF REPAIRS

Re-painting of caravan and mobile homes, using the paint mixing system



MAX. SIZE OF REPAIRS

1 m²



NUMBER OF REPAIRS (AVG.)

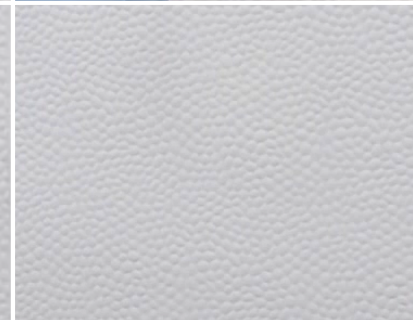
400 depending on damage size & condition



TIME OF REPAIRS (AVG.)

20-60 min.

depending on repair type & skill level




CONVENTIONAL REPAIR VS. HBC CARAVAN REPAIR

(calculation example)

Example is based on an 8 cm dent on a 5 meter long partially painted caravan.



CONVENTIONAL REPAIR 	
Repair time est.	30 Hrs.
Wages Total	3.750 EUR
Aluminum Panel est.	590 EUR
Window + sealing strips	420 EUR
Metal glue est.	85 EUR
Rubber/window profile	140 EUR
Sealing material est.	120 EUR
Materials est.	40 EUR
Disposal old parts est.	190 EUR
Total	5.335 EUR

HBC CARAVAN REPAIR 		
Repair time est.	4 Hrs.	500 EUR
Painting time est.	3 Hrs.	474 EUR
Removal, add. paint work	1 Hr.	125 EUR
Dismantle time	1 Hr.	125 EUR
Wages Total	9 Hrs.	1.224 EUR
HBC Repair Materials		140 EUR
Paint Materials		170 EUR
Total		1.534 EUR

Wage costs workshop est. 125 EUR Per Hour
Labor costs painting est. 158 EUR Per Hour

The prices and hourly rates are estimated net prices based on European market analysis.



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