

PRODUCT DATA

1142

Structural & Metal Bonding Adhesive (60 minute)

DESCRIPTION:

Transtar's Structural & Metal Bonding Adhesive is a two part non-sag structural that adhesive features an extended open time for bonding large components or prolonged assembly operations. This product is ideal for bonding a wide variety of materials, including metal, fiberglass, composites, vinyl esters, gelcoats, and thermoplastics. It has a 60 minute working time.

TECHNICAL DATA:

APPEARANCE:	Part A - Off white, Part B - Amber
MIX RATIO:	1:1
OPEN/WORK TIME:	60 minutes
FIXTURE TIME:	1.5 hr to 2.5 hr
FULL CURE TIME:	24 hours
HARDNESS:	Shore D 60 - 65
ELONGATION:	20 - 30%
OPERATING TEMP RANGE:	-40°F - 250°F
SHELF LIFE:	6 months (unopened)

BONDING TEST DATA:

<u>Substrate*</u>	<u>Results</u>	<u>Substrate*</u>	<u>Results</u>
Steel to Steel	>3000 psi	GelCoat to GelCoat	Substrate Failure*
Aluminum to Aluminum (acid etched)	>1500 psi	E-Coat to E-Coat	Substrate Failure*
Fiberglass to Fiberglass	Substrate Failure*	ABS	Substrate Failure*
SMC	Substrate Failure*		

* Substrate failure = Substrate breakdown prior to bond failure. (Area around bonded surfaces failed before the adhesive repair gave way).

IMPACT STRENGTH/PEEL STRENGTH:

Impact strength FG/FG, Auto Side Impact	>3.78J
Steel to Steel (ASTM D1876)	20 pli

CHEMICAL RESISTANCE:

Excellent resistance to common service environments such as salt fog, water, gasoline, diesel fuel, antifreeze, hydraulic fluids and cutting oils. **NOT RECOMMENDED FOR CONTINUOUS EXPOSURE TO:** Crude Oil, Toluene, MEK, Acetone, Aldehydes and Ketones.

Note: For best results, test product for suitability for environment.

SALES POINTS:

- Outstanding curability and dependability
- Non-sag formula
- Easy to use

SEE REVERSE SIDE FOR APPLICATION INSTRUCTIONS

(Refer to Material Safety Data Sheet for proper handling of products listed in this bulletin.)

PACKAGE SIZE:

#1142 Structural & Metal Bonding Adhesive (60 minute), 300 ml cartridge, 6/case



Structural & Metal Bonding Adhesive (60 minute)

WELD-BONDING:

1. Remove all paint, primer, corrosion and rust from the surface to be bonded using 36 grit abrasive disc. When preparing aluminum surfaces use 80 grit abrasive disc.
2. Straighten all metal and clamp equipment panels for proper alignment and fit. There should be no tension on the replacement panels.
3. Remove panels from vehicle.
4. Clean areas to be bonded with SCAT #6311, Speedi SCAT #6321/6323 or Aqua SCAT #6351/6354. Other cleaner may leave a film and prevent optimum bonding.
5. When bonding aluminum panels, apply Aluminum Bonding Prep #1154 to the bonding surfaces on the replacement panel and vehicle. Follow instructions on label for application instructions and dry times. Rinse off panel with water and a clean cloth and then dry.
6. Apply Weld Through Primer #4353 per the product instructions to the weld area only. Clean 4353 overspray areas with GP Solvent #4074 where adhesive bonding 1142 will be used. Note: Do not apply 1142 adhesive bond material where 4353 exists.
7. Load 1142 cartridge into 4450 Dual Mix Gun. Remove end plugs and attach the static mixer nozzle (included in package). Attach the static mixer nozzle to the cartridge, slide on the mixer nut, and then tighten. Gun the material until both parts (A & B) are equally flowing from the cartridge. Prior to applying adhesive, dispense a bead of the adhesive approximately the length of the mixer to ensure a proper mix.
8. Apply adhesive to both mating surfaces. Using a spreader, tool out the adhesive to ensure all base metal surfaces are coated.
9. Apply 1142 approximately 1/4" from the inside edge of the replacement panel.
10. Secure panels into proper position within 60 minutes. The adhesive contains glass beads to prevent over clamping and to provide a consistent bondline. If repositioning is needed, slide the panels rather than removing and reapplying. Apply clamps at 12" intervals or closer if necessary. In areas where clamps can't be applied, use sheet metal screws to hold the panel in place.
11. Tool any adhesive "squeezed out" to seal the outside seam along the bonded edge of the panel.
12. Adhesive is flammable, allow to dry 1.5 - 2.5 hours prior to welding. Weld appropriate areas (see diagrams for specific panel replacement details). Keep any welding to a minimum of 2 inches from the adhesive as it is combustible when cured and will burn.
13. Spray the inside of the quarter at the bonded seams with Amber Rustproofing #4423.
14. Clamps may be removed after welding or after adhesive has set (1.5 - 2.5 hours). Panels may need additional time if temperature is below 75°F. Cure time is 24 hours.


Note: Times are based on temperatures at 75°F. Cooler temperatures may extend the time, and hotter temperatures may lessen the time.


ROOF PANELS:

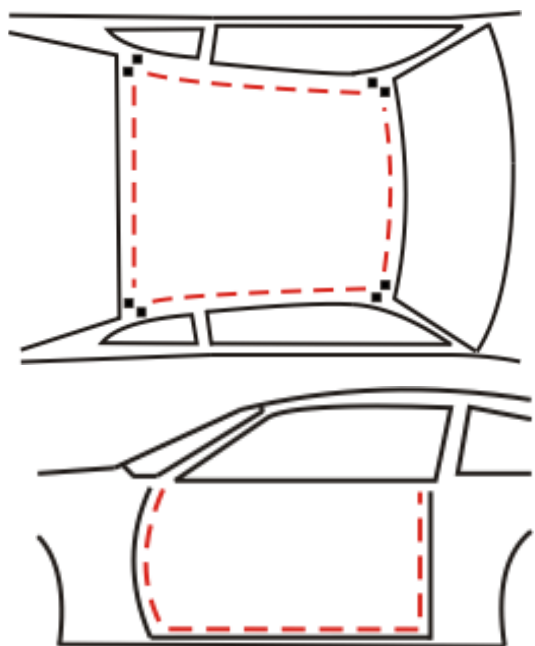
Follow vehicle manufacturer's replacement procedures to prepare the service panel for replacement. Leave a space of two inches at each of the four corners to allow for two plug welds or a two inch lap weld. Use adhesive around entire perimeter of the roof and on the roof bows if applicable. Follow 1142 directions for surface preparation and applying adhesive. NOTE: On extended length van roof panels, 2 - 3 extra plug welds should be placed evenly in each side of the roof panel.

DOOR SKINS:

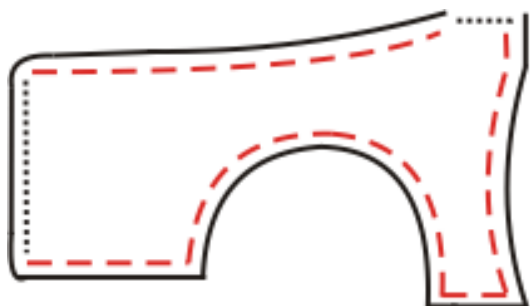
Follow vehicle manufacturer's replacement procedures to prepare the door frame and service panel for replacement. Adhesive may be used on the entire replacement panel. Follow 1142 directions for surface preparation and applying adhesive.

Adhesive Area 

Welding Area 

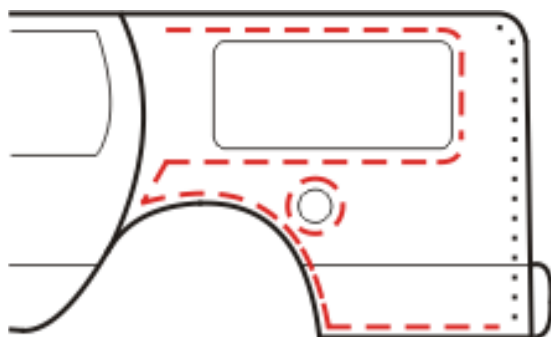


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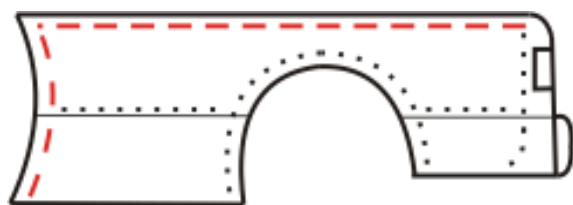
QUARTER PANELS:

Follow vehicle manufacturer's replacement procedures to prepare the service panel for replacement. Follow vehicle manufacturer's replacement procedures for welding the joint between the rear body and the quarter panel, as well as the sail panel. Adhesive can be used on all other areas, lower panel, wheel opening, door jamb, and trunk drip rail. Follow 1142 directions for surface preparation and applying adhesive.



UTILITY VEHICLES AND VAN SIDE QUARTERS:

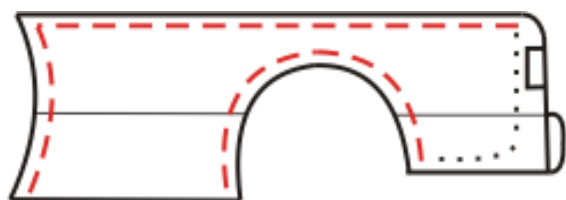
Follow vehicle manufacturer's replacement procedures to prepare the service panel for replacement. Follow vehicle manufacturer's replacement procedures for welding the rear vertical part of the repair and any joint section of the sail panel. Adhesive can be used on the lowers, the wheel openings, door jamb areas, along the windows and along the area where the roof meets the panel. Follow 1142 directions for surface preparation and applying adhesive.



PICKUP TRUCK BOX SIDES (INNER PANEL):



Follow vehicle manufacturer's replacement procedures to prepare the service panel for replacement. Follow vehicle manufacturer's replacement procedures for welding the rear vertical section, lower portion of panel attaching to the box and the wheel opening. Adhesive can be used on the top horizontal surface and the front edge of the box side. Follow 1142 directions for surface preparation and applying adhesive.

Note: If the inner and outer panels are already pre-assembled, the adhesive will only be used as the front edge of the box side.



PICKUP TRUCK BOX SIDES (OUTER PANEL):

Follow vehicle manufacturer's replacement procedures to prepare the service panel for replacement. Follow vehicle manufacturer's replacement procedures for welding the rear vertical section. Adhesive can be used on the top horizontal surface and the front edge of the box side. Follow 1142 directions for surface preparation and applying adhesive.

Adhesive Area 
Welding Area 

CAUTION: 1142 is classified as a structural adhesive. It SHOULD NOT be used to bond structural components such as rails, core supports, pillars and rocker panels.

DISCLAIMER: The technical information and suggestions for use have been compiled for your guidance and usage. Such information is based on Transtar Autobody Technologies experience and research and is believed to be reliable. As Transtar has no control over conditions in which the product is used, stored, or otherwise handled, the above information does not constitute a warranty. Buyers must assume responsibility for the suitability of the product for their purposes.