

## Loctite® Speedbonder™ Structural Acrylic Decreases Assembly Time; Increases Throughput by 15%

### *Manufacturer decreases overall cost on adhesive product*

#### Situation:

Slow dispensing and curing of an adhesive was creating a bottleneck in the production line of a utility truck body manufacturer. A manually-dispensed adhesive was being used to bond chrome-plated diamond plate steel to galvanized 14 ga steel. The parts were then hydraulically clamped for 20 minutes before being moved down the assembly line. In addition to the 20 minute cure time, the 375ml. adhesive cartridges often needed to be changed out during the assembly of the truck body, slowing the whole assembly process even more.



The customer was also having problems with the welding of shelf brackets for the truck bodies. When the sheet metal was welded, it created weld marks on the other side of the sheet metal. These cosmetic blemishes were being repaired before painting, adding to the total length of time it took to finish the truck body.

#### Solution:

Loctite® Speedbonder™ H4500 was able to help with both problems this manufacturer was experiencing. Loctite H4500 is a two-part, 10:1 fast fixturing acrylic, specifically designed for structurally bonding metals. To further reduce assembly time, Loctite also recommended the 985249 Pneumatic Dispensing Guns and manually-operated 985246 Dispensing Guns. The pneumatic guns allow the operator to dispense adhesive faster, necessary for the faster fixing time of the adhesive. These guns are also easier on the operators, as they are not “pumping” the adhesive by hand.

#### Results:

The manufacturer has been able to increase their throughput and has significantly increased the number of truck bodies they are able to make in a single day by 15%. The reason for this increase is the faster dispensing and cure time of the room-temperature curing H4500. The manufacturer has been able to save at least five minutes per part. Additionally, operator fatigue was reduced by the use of the pneumatic dispensing guns, and the 490ml. cartridges allow longer periods between change overs. The manufacturer is now using Loctite Speedbonder H4500 to bond the shelf bracket, instead of welding. Because there is no distortion of the metal (vs. welding), the manufacturer has been able to significantly reduce the time spent preparing the truck bodies for the painting process.



As an added bonus, the local Loctite distributor is located less than one block away from this manufacturer. As temperatures in the area often exceed 100°F, having the distributor stock the product in a temperature-controlled environment has increased the confidence of the manufacturer. This “local stocking” also has eliminated the chance for a “stock out” situation which could shut down production. In addition, the manufacturer has reduced their overall cost since Loctite H4500 is less expensive than the adhesive they had been using, and local stocking also eliminates shipping costs since the distributor is able to deliver the product right to the manufacturer.

#### USA

Henkel Loctite Corporation  
1001 Trout Brook Crossing  
Rocky Hill, Connecticut 06067  
860-571-5100  
Fax: 860-571-5475

Loctite Automotive Technology Center  
2455 Featherstone Road  
Auburn Hills, Michigan 48326  
248-364-4700  
Fax: 248-364-4720

#### CANADA

Henkel Loctite Canada, Inc.  
2225 Meadowpine Boulevard  
Mississauga, Ontario L5N7P2  
905-814-6511  
Fax: 905-814-5391

#### MEXICO

Henkel Capital, S.A. de C.V.  
Calzada de la Viga s/n, Fracc. Los  
Laureles  
Loc. Tulpetlac, C.P. 55090  
Ecatepec de Morelos, Edo. de Mexico  
011-525-836-1305  
Fax: 011-525-787-9404

#### BRAZIL

Henkel Ltda.  
Av. Prof. Vernon Kriebler, 91  
06690-111 Itapevi, São Paulo, Brazil  
Tel: 55-11-4143-7000  
Fax: 55-11-4143-7100