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3M™ Acrylic Foam Tape - Performance Worth Paying For

"I'll sell you something cheap, or I'll sell you something that works." 3M™ Acrylic Foam Tape may cost more than competitive materials, but it is well worth paying for, according to Lee Fenske, purchasing agent at Quality S Manufacturing in Phoenix, Arizona.

"Much of our competition sells lower-priced, lower-quality products. We use 3M acrylic foam tape because in the end, our products perform better and the customer is happier," said Fenske.

Quality S manufactures stainless-steel rocker panels, fender trim, roll bars and hitches for sale to aftermarket installers and truck and van converters. The company has been in business for fifteen years.

"One of the biggest challenges we face in this industry is to educate our customers about why 3M's tape is best. They see that our products cost more than those offered by stainless manufacturers using cheaper adhesives. We can prove to them that the total applied cost is lower — they won't have to replace parts that fail because of a less expensive fastening method," said Fenske.

Quality S previously used synthetic rubber adhesives on their products, but found that over time the adhesive would fail, and the trim pieces would fall from the vehicle. "For many years synthetic rubber was the industry standard, but it provided totally unsatisfactory results," said Fenske.

The synthetic rubber system consists of a polyethylene foam core with a synthetic rubber adhesive. It has poor heat resistance, poor stress handling capabilities, and marginal adhesive performance to clear coat/base coat paints, according to Dale Stewart, 3M senior technical service engineer. "Failure occurs because it is difficult to anchor a synthetic rubber adhesive to a polyethylene core.



Stainless-steel panels add protection and value to this Ford F-150 pickup.

Polyethylene has a very low surface energy, and is difficult to bond to," Stewart added.

Quality S decided to test 3M acrylic foam tape as a replacement for synthetic rubber. "Our 3M sales representative offered test data and information on the tapes, but we decided that a move of that significance — from synthetic rubber to 3M acrylic foam tape — required that we do our own testing, especially since we were the first stainless-steel accessory manufacturer to consider switching from synthetic rubber. Better tape would mean a higher price, and we wanted to be sure 3M's performance advantages were worth paying more for," said Fenske.

"We installed many different kinds of kits to be sure more than one application was used as a test type. Test results were excellent, and we knew that using 3M product would bring greater profits to our shop," concluded Fenske.

According to 3M's Stewart, "When Quality S began using 3M™ Acrylic Foam Tape instead of synthetic rubber, they found it very difficult to laminate the tape to the stainless-steel sheets since the adhesive is considerably more

aggressive than synthetic rubber. I developed the concept for a laminator for Quality S to apply our tape. The laminator eliminates bubbles and wrinkles and makes it unnecessary to reposition the tape on the stainless-steel sheets. We now offer the 3M™ WL48 Wide Web Laminator to other customers who use wide web 4229P acrylic foam tape in their product line."

Fenske's stainless steel comes from manufacturers in Japan, Germany and France. It is shipped in large coils, then rolled out using a leveler, and sheared into workable-size pieces. Quality S then laminates the 3M acrylic foam tape in place, and cuts the steel to proper kit sizes.

"Our steel must have a good, clean look with no grain or cloudiness. Occasionally we reject a shipment if it does not meet our quality standards," Fenske added.

New vehicle styles present a challenge to Quality S when designing its stainless-steel trim products. "Today's vehicles, such as the new Ford '97 line, have many more variations and compound curves than those of the past. This offers a challenge for us in design and manufacturing, for the installer in proper alignment, and for the tape in holding parts onto highly-contoured areas," said Fenske. "We invest a great deal of time designing our parts with these challenges in mind. We believe our products will look cleaner and last longer because they fit correctly."

Surface preparation plays an integral part in the success of mounting stainless-steel products. Quality S recommends that the surface be cleaned first using a bug and tar remover to eliminate wax and grime. Bug and tar remover is petroleum based, so it is important to follow this step with a liberal dousing of rubbing alcohol to remove the petroleum.

Before adhering a part, hold it in place on the vehicle using very light pressure to confirm a good fit. Then remove the tape liner slowly and roll the part in place, moving from end to end or top to bottom.

Stainless-steel accessories properly attached with 3M acrylic foam tape give a vehicle life-long protection, value and style.



Dale Stewart,
senior technical
service engineer

TechTip

Once 3M™ Acrylic Foam Tape is applied to a piece of stainless steel, it is very difficult to remove and realign. Unlike synthetic rubber adhesives, acrylic foam tape provides a permanent bond the instant it comes in contact with steel. A large section of tape presents greater potential for error since it is more difficult to correctly align by hand. In response to this, 3M

recommends the use of a laminating device to minimize bubbles and wrinkles when applying tape to steel. A laminator improves productivity and efficiency by eliminating the need for tape re-application. It reduces wasted tape, is simple to use and provides consistent, uniform results.

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