

ADHESIVE

Application Techniques

For maximum bond strength (during installation of the final part) the surface should be thoroughly cleaned and dried. Typical cleaning solvents are heptane (for oily surfaces) or isopropyl alcohol (for plastics). Use reagent grade solvents since common household materials like rubbing alcohol frequently contain oils to minimize the drying affect on skin and can interfere with the performance of a pressure-sensitive adhesive.

***Note:** Carefully read and follow the manufacturer's precautions and directions for use when working with solvents. These cleaning recommendations may not be in compliance with the rules of certain air quality management districts in California; consult applicable rules before use.

It is necessary to provide pressure during lamination (1.5-20 psi recommended) and during final part installation (10-15 psi) to allow the adhesive to come into direct contact with the substrate. Using a hard edged plastic tool, which is the full width of the laminated part, helps to provide the necessary pressure at the point of lamination. Heat can increase bond strength when bonding to metal parts (generally this same increase is observed at room temperature over longer times, weeks). For plastic parts, the bond strength is not enhanced with the addition of heat.

The ideal adhesive application temperature range is 60°F (15.6°C) to 100°F (38°C). Application is not recommended if the surface temperature is below 50°F (10°C) because the adhesive becomes too firm to adhere readily. Once properly applied, at the recommended application temperature, low temperature holding is generally satisfactory

3M-467 (.002)

3M-468 (.005)

Permanent acrylic adhesive for longterm bonding applications. Peel adhesion values are outstanding, and generally increase as a function of time and temperature. It offers excellent chemical resistance. Products with greater thickness provide higher bond strength to smooth surfaces and substantially higher bonds to rough or textured surfaces. Suitable for bonding graphic nameplates and overlays to metal and high surface energy plastics (ABS, Acrylic, Polycarbonate, PVC) and glass in the aerospace, medical and industrial equipment, automotive, appliance and electronic markets.

<http://multimedia.3m.com/mws/mediawebserver?66666UuZjcFSLXTtIXTyLxfyEVuQEcuZgVs6EVs6E666666-->

Flexcon TT200

Flexcon TT400

A lower cost alternative that covers both the 3M-467/468 & 3M-9471/9472 adhesives. This high performance permanent acrylic tape adhesive bonds well to both high and low energy plastics, powder-coated paint and painted surfaces. This adhesive is an excellent product for use with graphics overlays for the automotive, appliance, electronic, and aerospace industries.

<http://www.flexcon.com/Products-Solutions/Search/Item.aspx?search=flexmount&id=491>

3M-9471LE (.002)

3M-9472LE (.005)

Permanent acrylic adhesive that is designed for applications requiring greater initial adhesion or high bond to low surface energy plastics (polypropylene and polyethylene). It also offers an excellent bond to powder coatings. Because it "flows" quickly, it is ideal for lamination to porous fabrics, foams, and wood.

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3M-9469 (VHB-.005)

3M-9473 (VHB-.010)

This "Isotac" acrylic adhesive is the highest performing adhesive in the 3M laminating adhesive line. It offers a very high temperature resistance and exceptional shear strength. VHB tapes are ideal for many interior and exterior industrial applications. VHB tapes are ideal for bonding a variety of substrates, including most metal, sealed wood and glass, as well as many plastics, composites and painted surfaces

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3M-Y966 (.002 Hi-Temp)

This "High Temperature" acrylic is designed for exposure up to 450 deg F., and has a high chemical resistance. This adhesive has excellent "shear" strength even at elevated temperatures. It offers adhesion peel characteristics slightly higher than most other acrylic formulations. Its extremely low "outgassing" properties are important in the electronic and aerospace industry

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3M-583 (Triac Heat Applied)

This adhesive is a high strength, flexible, nitrile phenolic based thermoplastic bonding film. It can be both heat or solvent activated. Often used for Military nameplates.

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Arlon/Viscor-1/32" Foam

Arlon/Viscor-1/16" Foam

This synthetic rubber adhesive is a high performance double-coated "closed cell" foam tape that combines high initial bond strength with excellent shear and cohesive strength. This foam tape bonds well to most metals and plastics.

<http://www.arlon.com/Objects/Documents/Arlon%20ECP/automotive%20Oem%20and%20Components/Double%20Coated%20Foam%20tapes/Product%20Data%20Sheet%20-%20GP200%20DC%20Foam%20Tape%20-%20rev2002a.pdf>