



# Technical Data Sheet

## 3M™ Adhesion Promoter AP596

### Product Description

3M™ Adhesion Promoter AP596 is a low viscosity adhesion promoter recommended for use with the 3M™ 500-Series Polyurethane Adhesives/Sealants and 3M™ 700-Series Hybrid Adhesives/Sealants, as well as the 3M™ OEM Polyurethane Glass Adhesive Sealant 590. 3M Adhesion Promoter and Primers are applied to a wide variety of materials including glass, acrylic / PMMA, polycarbonate, and many other materials prior to adhesive/sealant use to assist in bonding.

### Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

### Typical Uncured Physical Properties

Attribute Name	Value
Viscosity	Water Thin

### Typical Physical Properties

Attribute Name	Value
Color	Clear
Solids Content by Weight	3 %
VOC	798 g/L
Active Ingredient	Silane / Ethanol

### Handling/Application Information

#### Directions for Use

##### Surface Preparation:

Surfaces to be sealed or bonded should be clean and dry. Surfaces should be free from grease, mold release, oil, water/condensation, and other contaminants that may affect the adhesion of the sealant. Abrading with 180 to 220 grit abrasive followed by a solvent wipe will improve the bond strength. Suitable solvents include 3M™ Adhesive Remover, methyl ethyl ketone (MEK), isopropyl alcohol (IPA) or acetone.\*

\*When using solvents, use in a well ventilated area. Extinguish all sources of ignition in the work area and observe product directions for use and precautionary measures. Refer to product label and MSDS for further precautions. Always pre-test solvent to ensure it is compatible with substrates.

Local and federal air quality regulations may regulate or prohibit the use of these products or surface preparation and cleanup materials. Consult local and federal air quality regulations before using these products.

**Note:**Alcohol will interfere with the curing process of polyurethane and extra care must be taken when using alcohol as a cleaning solvent to prevent any contact with the sealant.

##### Primer:

Use of a primer is an extra step and cost and will depend on substrates and the final end use. Using primer can improve the corrosion resistance of certain metals as well as improve the durability of the bond when exposed to high humidity conditions. For most applications, high strength bonds on metal can be achieved without the use of a primer. Pre-testing for adhesion is suggested to determine if a primer is needed.

Use of a 2-step surface preparation is recommended for certain substrates. Surface prep consists of applying 3M™ Adhesion Promoter AP596 followed by the appropriate 3M™ Primer to both bonding surfaces prior to using adhesive sealant. In areas with VOC restrictions, it is imperative that bonding surfaces are clean of contaminants. It may be acceptable to bond certain substrates without primer if the bonding area is abraded with 3M™ Scotch-Brite™ abrasive to improve adhesion. Contact 3M for technical support.

Do not apply 3M™ Adhesion Promoter and Primer on frozen nor wet surfaces. Do not apply over silicone nor in the presence of curing silicone.

**Application:****Supplies:**

- 3M Adhesive Sealant in cartridges or 600 ml sausage packs
- 3M AP596 Adhesion Promoter
- Appropriate 3M Primer matched to the substrate(s)
- Soft lint-free cloths for 3M AP596 Adhesion Promoter and/or 3M P592 Metal Primer application
- Wool dauber(s) for 3M Primer application
- Applicator gun
- Nozzle(s)
- Substrates
- Personal protective gear (safety glasses, powder-free gloves, etc)

Clean entire surface of substrates using a solvent or non-greasy cleaner.

Apply 3M™ Adhesion Promoter AP596 to both substrates: Pour 3M AP596 Adhesion Promoter onto a soft lint-free cloth folded in quarters. Wipe the bonding area, flipping the cloth at regular intervals to reveal a clean section. With a new clean folded cloth, wipe off the 3M AP596 Adhesion Promoter in the same manner, flipping the cloth at regular intervals to reveal a clean section. Wait 15 minutes to dry.

Apply appropriate 3M™ Primer to both substrates: Shake appropriate 3M Primer for 30 seconds after you hear the ball moving inside the bottle. Dip a clean wool dauber into the primer. Roll the dauber around the edge of the bottle to squeeze out excess primer. Replace cover on primer bottle. Apply a single continuous layer of primer to the surface. Wait 30 minutes to dry. Refer to the Instructions for Use for the appropriate adhesive/sealant chosen and proceed accordingly.

**Cleanup:** Use a solvent such as MEK to clean up any excess primer.

**Application Equipment**

Wool dauber is recommended for applying 3M Primers. Use of a paint brush or other method of application is not recommended because there will be voids in the coating after application. Any voids will cause a defect in the coating and will affect bond quality. Contact your 3M Sales Representative for information on ordering Wool Daubers.

**Storage and Shelf Life**

3M™ Adhesion Promoter AP596 must be stored in an appropriate climate controlled space suitable for flammable materials. Store the product in the original unopened container 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity to maximize shelf life. When stored at recommended conditions, the shelf life is 12 months from the date of manufacture. After opening, the 3M AP596 Adhesion Promoter must be used within 30 days (if the product begins to turn cloudy, dispose of properly).

**Automotive Disclaimer****Select Automotive Applications:**

This product is an industrial product and has not been designed or tested for use in certain automotive applications, such as automotive electric powertrain battery or high voltage applications, which may require the product to be manufactured in a IATF certified facility, meet a Ppk of 1.33 for all properties, undergo an automotive production part approval process (PPAP), or fully adhere to automotive design or quality system requirements (e.g., IATF 16949 or VDA 6.3). Customer assumes all responsibility and risk if customer chooses to use this product in these applications.

**Information**

Precautionary Information: Refer to product label and Material Safety Data Sheet for health and safety information before using the product. For information, please contact your local 3M Office. You can click or scan QR code to see contact detail or visit [www.3M.com](http://www.3M.com) Important Information: All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method or application. All questions of liability relating to this product are governed by the terms of the sale subject, where applicable, to the prevailing law. Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications. This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations.

**ISO Statement**

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

3M™ Centre  
Cain Rd, Binfield, Bracknell RG12 8HT, United Kingdom  
[3m.co.uk/iatd](http://3m.co.uk/iatd)

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