



Silane Glass Treatment

AP115

Technical Data

October, 2006

Product Description

3M™ Silane Glass Treatment AP115 is used to promote adhesion of 3M™ VHB™ Tapes to uncoated glass surfaces. Glass is hydrophilic (water loving) in nature and may lead to performance issues over time in humid or wet environments due to water vapor undercutting the bondline and interfering with normal adhesion forces. 3M silane glass treatment AP115 treats the glass surface creating a hydrophobic surface that will act to protect the 3M™ VHB™ Tape bondline.

Typical Physical Properties

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

Solvent:	Isopropyl alcohol and water
Active Ingredients:	Less than 1% by weight
VOC:	6.08 lbs./gallon (728 g/l)
Color:	Clear
Flashpoint:	53°F (12°C) [Test Method: Closed Cup]
Liquid Density:	6.58 lbs./gal. @ 60°F (0.789 kg/l @ 15.6°C)
Coverage:	Approximately 20 - 25 sq. ft. per 4 fl. oz. bottle (1.8 - 2.3 sq. m per 118 ml bottle)
Availability:	4 fl. oz. (118 ml spray bottle or 1 gallon (3.78 L) bulk bottle
Application Temperature:	50°F - 100°F (10°C - 38°C) Note: It is best to apply the solution at or above the minimum application temperature of the selected 3M™ VHB™ Tape since the tape will be applied shortly after the application of the silane solution.

Application Instructions

The glass surface must be relatively clean and dry. Contaminated glass surfaces (excessively dirty or oily) should be cleaned first with a 50/50 isopropyl alcohol and water mixture.* A clean lint-free cloth should be used. The following surface preparation method should be followed when using 3M™ Silane Glass Treatment AP115 to treat an uncoated glass surface. This procedure is commonly known as the “two cloth” cleaning method.

1. Moisten a clean, soft absorbent, lint-free cloth with the silane solution and vigorously wipe over the area to be bonded in one direction. Do not dip the cloth into the silane solution as this will contaminate it. Alternatively, the silane solution may be sprayed onto the surface and vigorously wiped with the clean cloth around the perimeter of the glass or wherever the tape will be applied. Experience has shown that only a very thin layer (monolayer) of the silane solution gives the best and most consistent results.
2. In an effort to achieve a monolayer, the primed area should be re-wiped (in one direction) with a fresh, clean, lint-free, dry cloth immediately after initial application. The glass should be completely dry with no film residue visible.* Under normal room temperature conditions it is best to wait 1 to 2 minutes before applying the tape so that any residual moisture can evaporate. Apply 3M™ VHB™ Tape within 15 minutes after treating the surface to minimize the risk of recontamination of the surface.

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Application Instructions (continued)

3M™ Silane Glass Treatment AP115 is clear and should not cloud or discolor glass. If clouding occurs, excess solution has been applied. This must be removed immediately with a dry and clean, lint-free cloth prior to bonding with 3M™ VHB™ Tape. If excess solution has been allowed to dry it must be removed with a 50/50 isopropyl alcohol and water mixture. The two cloth cleaning method can then be followed again prior to tape application.

***Note:** When using solvents, extinguish all ignitions sources, including pilot lights, and follow the manufacturer's precautions and directions for use. Please refer to the MSDS for further precautions and safe handling information for this product.

Shelf Life

One year from date of manufacture. See the date of manufacture listed on the bottle label.

Storage

- Keep 3M silane glass treatment AP115 in the original container unless transferring from the one gallon container to a smaller vessel such as a 4 oz. spray bottle.
- Keep original container tightly sealed to avoid solvent evaporation.
- Store in an environment between 50°F to 95°F (10°C to 35°C). Allow the solution to acclimate to application room temperature condition before using to treat glass.

Note: Flammable Liquid and Vapor. Keep away from sources of ignition and avoid static discharge. Conductive clothing and shoes are recommended while dispensing or handling this product.

Product Use

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 of application.

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ISO 9001:2000

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.



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