EIFS SEALANT GUIDE



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INTRODUCTION

The objective of this guide is to explain how to use Adseal products on EIFS new construction projects. The advantage of using an inorganic sealant such as silicone compared to an organic sealant such as polyurethane. You will also learn how to prepare the surface and install the sealant properly.

ORGANIC VS INORGANIC SEALANT

The advantage of inorganic sealant (silicone) is the excellent UV resistance. The life span of a silicone can be more than 25 years compared to an inorganic sealant (polyurethane) of 8 to 15 years. Silicone will keep its elasticity throughout its life expectancy. It will remain flexible at very cold temperatures compared to polyurethane that will stiffen. Silicone is easy to install in both cold and warm temperatures. When time will come for restoration, silicone will be easier to remove compared to polyurethane. Due to poor UV resistance the polyurethane can pass from a cured to an uncured state (reversion reaction). This fact makes the polyurethane more difficult or impossible to remove and will create very high maintenance cost for restoration.

ADFAST PRODUCTS FOR EIFS

ADFAST supplies high quality silicone sealants available in more than 400 colors. We can make custom colors in small quantities and supply a wide range of accessories to make your project successful. Information on these different products can be found on our website: www.adfastcorp.com . These products must be used in accordance with the instructions provided by ADFAST.

- STANDARD ASTM C1382-16: Used in Exterior Insulation and Finish Systems (EIFS) Joints.
- Weatherseal silicone sealants:



ADSEAL DWS 4580 is a medium modulus silicone sealant class 50 made for perimeter joints. It can be use around doors, windows, curtain walls or any other penetration bonding to the base coat. Adseal DWS 4580 silicone sealant can be used on several substrates. This allows for air barrier continuity of the building envelope and will not stain most materials.

Available in more than 400 colors. Custom colors available upon request.



-----Base Coat with reinforcing mesh embedded

----- Finish Coat

Standard Test Method for Determining Tensile Adhesion Properties of Sealants When



ADSEAL LM 4600 is a low modulus silicone sealant class 100/50 specially designed for expansion joints. It can also be used as a perimeter sealant. It is offered in more than 400 colors. Custom colors available upon request.



----- Base Coat with reinforcing mesh embedded ----- Finish Coat

Cleaner and primer:

ADSEAL CLEANER 6003 is a product designed for cleaning most surfaces. It will not adversely affect most surfaces (a preliminary test on a hidden surface is recommended).

ADSEAL PRIMER MK60095 is a solvent-based primer. It improves adhesion on surfaces that are more difficult to adhere. This primer will dissolve the expanded polystyrene (EPS) insulation board found within Exterior Insulation and Finish Systems (EIFS). Over application of this product onto EIFS substrates could diminish the integrity of the substrate and void the EIFS Manufacturer's Warranty. For more information consult our ADSEAL PRIMER Guide.

Backer rods:

Closed cell backer rod is recommended by EIFS manufacturers. ADFAST offers the ST-2400 ADSEAL BACKER ROD, a closed cell, resilient, polyethylene backer rod with a water-resistant outer skin.

Tooling accessories: •

ADFAST provides tooling accessories like our TOOLING KIT and SHAPING TOOL. These tools will be helpful to accomplish effective and esthetic joints.

ON SITE TEST

Before starting your project, we suggest an on-site test according to ASTM C1521 standard method. This test will determine the right procedure that should be used. Call your local technical representative for more information.









JOINT DIMENSION

Follow the EIFS manufacturers recommendation for the minimum width of the expansion and perimeter joints. Adfast recommend a minimum ¹/₄" x ¹/₄" (width/depth) joint. The maximum depth of the sealant should not exceed 5/8". The ideal ratio (width / depth) should be 2:1 if possible. Higher joint ratio must be approved by Adfast.

SURFACE PREPARATION

Cleaning of non-porous surface:

Surface must be dry, free of all contaminant and frost-free. Use our ADSEAL 6003 to clean smooth surfaces. Allow to dry 20 minutes before silicone installation. Use the two-cloth method of cleaning with the first cloth moistened with cleaner and then wiping with the second clean, dry cloth before the solvent is evaporated. Change cloths regularly to avoid accumulation of dirt. Avoid soaking a soiled cloth in the clean solvent to avoid contaminating it. Choose white rags that do not hold dust and do not leave lint on substrates. Ensure that all surfaces that will be in contact with the sealant are thoroughly cleaned. Sealant should be applied within one hour of cleaning to avoid contamination of surfaces. If the application is made after more than one hour, repeat the cleaning. Avoid using detergents or other cleaning agents not specified by ADFAST.

• Cleaning of porous surface:

For porous surface use a soft brass bristle wire brush. Be careful to not damage the finish coat of the EIFS. Remove all dust with an oil free air compressor.

• Priming:

ADFAST recommends the use of ADSEAL MK60095 primer on EIFS base coat. Allow the primer to dry for about 20 minutes before installing backer rod and/or sealant. Sealant should be applied within one hour of the primer being installed to avoid contamination.

Backing: •

The use of closed cell backer rod (instead of open cell) behind sealants is recommended to prevent premature failure of the sealant joint. Open cell backer rod will absorb and hold water that could affect the sealant/EIFS bond line. Closed cell polyethylene backer rod is recommended by major EIFS manufacturers. ADSEAL BACKER ROD ST-2400 is a high-quality closed cell backer rod that must be used in all your EIFS projects. It is compatible with all Adfast silicones. Insert backer rod ADSEAL BACKER ROD ST-2400. Avoid puncturing the skin with a sharp tool. The backer rod should be 25% to 30% larger than the gap to be filled. In the case where it is impossible to use backer rod, please use a non-stick tape.

Sealing:

Apply the suggested silicone continuously with a caulking gun.

• Toolina:

Shape the sealant bead with the appropriate tool. The shaping can be done with a solution of 5% clear dish soap and 95% water. Dip the ADSEAL TOOLING KIT into the solution. Avoid applying solution directly to the sealant. The use of this solution may reduce sealant adhesion if used in an abusive manner.

STORAGE AND APPLICATION CONDITIONS

The climatic conditions of storage and application determined by ADFAST must be respected. Failure to comply with these recommendations can alter the product and cause bonding failure. The contractor must understand and follow these guidelines. Refer to the technical data sheet of the product for storage and application temperatures and the temperature and time required for complete polymerization.

APPLICATION TEMPERATURE (MOVEMENT-DURING-CURE)

Sealants from the ADSEAL product line can be applied throughout the year, even in winter, unlike organic sealants such as polyurethanes, thermoplastics or any solvent-based adhesives or sealants. Never apply sealant in weather conditions where condensation or precipitation exists such as rainfall, freezing rain, snow, or intense fog. Make sure the surface is free of frost. The temperature of the silicone sealant must be the same as the substrates. Avoid applying a warm sealant to a cold surface. The lower the temperature, the longer the sealant will take to vulcanize. *** Cure of the sealant occurs from the surface down and if the joint is moving during cure, due to large fluctuations in ambient temperature, there will be expansion and contraction of the material creating a risk of cracking or wrinkling / swelling at the surface of the joint.

To reduce this impact, it is recommended to:

Install the sealant at the average daily temperature to reduce daily movement. Ensure that the joint depth does not exceed a ratio of 2:1 or 12 mm (1/2") maximum. The use of a primer can accelerates the development of the adhesion. Although not necessarily recommended, this step can help establish the success of the project if there is excessive movement of the joint during cure.

SHELF LIFE OF THE PRODUCTS

The products used in a project must be used within the shelf life written on each of the containers. Products used beyond the expiration date could have its physical properties altered.

FOR MORE INFORMATION

ADFAST works in partnership with construction industry professionals in order to make your project an assured success. For more information visit our website at www.adfastcorp.com

We are present in most cities in Canada and the United States. For all information you can contact your local representative or our technical department at the following email address: technicaldept@adfastcorp.com

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