



# StoTherm<sup>®</sup> EIFS Reference Guide: Repair and Maintenance

**Sto** Building with conscience.

Sto is the innovative world leader in cladding, coating and restoration systems. Sto was an Exterior Insulation and Finish Systems (EIFS) pioneer, introducing Sto EIFS to Europe in 1963. Headquartered in Atlanta, Georgia, Sto Corp., which is ISO 9001:2008 and ISO 14001: 2004 certified, continues to lead the North American industry in innovation. For example, Sto Lotusan® products featuring Bionics Technology impart super hydrophobic properties — the Lotus-Effect® — to help walls stay clean longer. StoMachine Technology, another example of Sto innovation, speeds production while supporting quality installations.

Because of our pioneering experience and technology know-how, we have produced wall claddings for tomorrow that are renowned today for their outstanding performance and aesthetic beauty. Sto has developed StoTherm<sup>®</sup> Insulated Wall Cladding for virtually any substrate, circumstance and budget, products to solve or prevent a myriad of problems, and 100% synthetic resin coatings in colors that challenge the imagination.

While StoTherm<sup>®</sup> EIFS are low-maintenance claddings, regular inspection and attention to maintenance needs will help assure their performance and enhance the satisfaction of owners and users year after year.

We at Sto hope that through our commitment to high standards of quality, innovation and service, we will gain your confidence in our company and our products. . . because your success is ours.

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## **Cleaning EIFS 1.01**

Periodically EIFS finishes may need to be cleaned to remove dirt, algae, or mildew that can accumulate on the surface. A good cleaning can often restore the appearance of the EIFS. Cleaning is also necessary before recoating or resurfacing EIFS to ensure good adhesion of topcoats that may be applied over the EIFS finish. This instruction provides guidance on cleaning materials and methods. Always follow precautions on labeling for use, handling and disposal of cleaning materials, and always test clean an inconspicuous area to be sure of desired results. Estimated time of completion: < 1 man-hour for 100 ft<sup>2</sup> (9.3m<sup>2</sup>).

#### **Tools Required:**

- Soft-medium bristle brush
- Garden hose
- Pressure washer

#### **Materials Required:**

- Trisodium phosphate detergent
- Household bleach
- Clean, warm water
- Clean empty buckets

### Procedure:

**1.** Depending on the size of the area to be cleaned and the tenacity of the dirt, algae or mildew accumulation, the tools used for cleaning will vary, for example:

- a.) hand cleaning with a soft-medium bristle brush for isolated surface spots,
- b.) a garden hose for a full elevation, and
- c.) pressure washing for entire buildings and/or difficult to remove accumulations
- 2. A generic cleaning solution consists of:
  - a.) 1-2 cups (0.24-0.47 L) trisodium phosphate (TSP) detergent
  - b.) 1 gallon (3.8 L) of warm water

Add <sup>1</sup>/2 to 1 quart (0.47-0.95 L) of bleach to remove algae (usually green stains on the surface of the finish) or mildew (generally black stains that look like dirt). Bleach is necessary to kill micro-organisms that create the algae or mildew on the finish. If no bleach is used or if it is not allowed sufficient time (about 15 minutes) to sit on the surface and kill the micro-organisms, algae or mildew can recur. Other commercially available cleaning solutions that can be used are:

- a.) General Cleaner by Wind-lock Corp.<sup>1</sup> a general surface cleaner
- b.) Miracle Mildew Remover by Wind-lock Corp.<sup>1</sup> dissolves algae and mildew
- c.) Wash Down<sup>™</sup> by Demand Products<sup>2</sup> a general surface cleaner

**3.** Apply the cleaning solution to the wall surface by brush or spray and allow to soak for a period of 15-20 minutes. For heavy deposits, lightly scrub the affected area with a soft-medium bristle scrub brush. If a pressure washer is used, keep the pressure at approximately 200-500 psi (1.4-3.4 MPa), and keep the nozzle several feet from the surface. Do not exceed 500 psi (1.4 MPa) pressure, as the EIFS surface integrity can be destroyed with higher pressure washing. Some variation of these instructions may exist for proprietary brand cleaners. Always read the label and follow directions.

**4.** After the cleaning solution has soaked the surface, rinse the surface thoroughly with clean water and allow to dry.

### 5. <u>Do Not:</u>

- a.) Use solvent based cleaners acetone, gasoline, ketones, mineral oils, or turpentine – for example, since solvent can penetrate the EIFS finish and base coat materials and damage the EPS insulation board.
- b.) Use steam cleaning or other high temperature cleaning methods, since the EPS insulation board in the EIFS has a service temperature limit of about 165°F (74°C).
- c.) Use excessive scrubbing, stiff bristle brushes or wire brushes, since this type of abrasion can damage the EIFS finish.
- d.) Use high pressure washing (in excess of 500 psi [3.4 MPa]), or sandblasting, since the EIFS laminate can be damaged with excess pressure or abrasion.

**6.** Always check local regulatory requirements for disposal of cleaning solution and waste water.

Note:

- Wind-lock<sup>™</sup> Corp., 1055 Leisz's Bridge Road, Leesport, PA 19355 Tel: 1-800-USA-LOCK (872-5625) Web: www.wind-lock.com
- Demand Products, Inc., 1055 Nine North Drive, Alpharetta, GA 30004 Tel: 1-800-325-7540 Web: www.demandproducts.com

### **Recoating EIFS 1.02**

EIFS finishes are easily recoated to refresh the look of the cladding or to change the color. Sto produces coating products engineered specifically for this purpose. StoCoat® Lotusan<sup>®</sup> is the preferred coating product for this application. Lotusan is an exterior wall coating modeled on the microstructure of the lotus leaf. This BIONICS® technology, engineered by Sto, imparts super-hydrophobic properties the Lotus-Effect® – to the coating. This helps the coating stay cleaner longer. StoCoat® Acryl is another Sto coating that can be considered for this purpose, when atmospheric pollutants are less of a concern. If hairline surface cracks of less than 1/32" (0.8 mm) in width exist in the EIFS textured finish, StoSilco® Lastic is recommended as an alternative. It is a high-build (10-17 dry mils) elastomeric coating designed to provide needed crack-bridging. Before recoating, the finish surface of the EIFS must be sound and free of defects such as peeling, blistering, cracking or delamination. Surfaces must be thoroughly cleaned to remove contaminants including dirt and mildew that might affect adhesion of the coating. Refer to procedure number ER 1.01, "Cleaning EIFS," for detailed cleaning recommendations. Select colors with light reflectance value of 20 or greater for use with EIFS.

#### **Tools Required:**

- Spray equipment and/or paint roller and/or high quality paint brush
- Roller screens, etc. as needed

#### **Materials Required:**

- Sto Coating (StoCoat<sup>®</sup> Lotusan<sup>®</sup> or StoCoat<sup>®</sup> Acryl are recommended)
- Masking tape, plastic sheeting, etc. for overspray protection

#### Procedure:

**1.** Repair and clean the EIFS surface to be recoated (include caulk inspection and replacement as needed).

2. Protect adjacent areas against overspray, splatter, etc.

**3.** Apply recoating material by spray, roller or brush in accordance with Sto recommendations (refer to appropriate specifications and product bulletins). Protect installed coating from rain and freezing until completely dry.



### **Resurfacing EIFS 1.03**

Resurfacing of EIFS is sometimes done for cosmetic reasons, for example, to restore the original appearance of an aged EIFS finish, or to change color, texture, or both, thereby renewing the appearance of an EIFS facade. It may also be a more economical way to fix excess surface cracking or some other repetitive surface defect that exists in an area of the EIFS facade, rather than repairing each defect individually. This repair illustrates a method of resurfacing EIFS. It does not cover the analysis of defects such as cracks through the EIFS, which should be properly diagnosed and repaired prior to resurfacing. Estimated time of completion: < 2 man-days for 500 ft<sup>2</sup> (46 m<sup>2</sup>).

#### **Tools Required:**

- Stainless steel trowel
- Plastic float
- Detail tools
- Paddle type mixer

#### **Materials Required:**

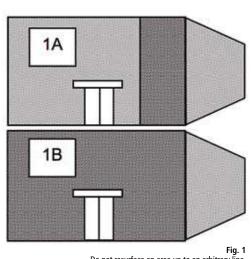
- Masking tape
- Sto RFP (or other Sto base coat material)
- Sto Mesh
- Sto Finish
- Clean empty buckets

#### Procedure:

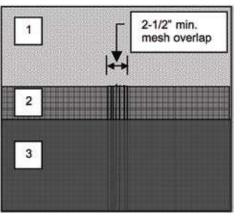
**1.** Generally, one should resurface up to an architectural break in the wall such as an aesthetic reveal, change in plane, or change in elevation, to minimize any change in appearance of the resurfaced area compared to an adjacent area (Fig. 1).

**2.** Remove dirt, algae or any other surface contamination. Generally a trisodium phosphate detergent will remove most dirt. The addition of bleach is necessary to remove algae or

mildew. Refer to "Cleaning EIFS", ER No. 1.01. After applying the cleaning solution rinse the surface thoroughly with clean water and allow to dry.



Do not resurface an area up to an arbitrary line, since it will not match the adjacent area (1A). Resurface up to an architectural break in the wall or resurface the entire elevation for a uniform appearance (1B).

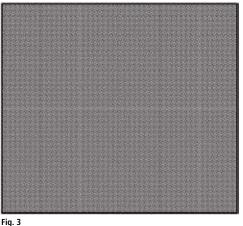


**3.** Apply Sto base coat to the surface with a stainless steel trowel to a uniform thickness of approximately 1/8 inch (3 mm). Work horizontally or vertically in strips of 40 inches (1 m), and immediately

Fig. 2 1. Existing EIFS finish 2. Sto Mesh 3. So Mesh embedded in STO RFP

embed the Sto Mesh into the wet base coat by troweling from the center to the edge of the mesh. Overlap mesh not less than 2-1/2 inches (64 mm) at mesh seams and feather seams and edges. Allow to dry (Fig. 2).

**4.** Apply Sto finish with a stainless steel trowel to a rough thickness slightly more than the largest aggregate size. Use the trowel to scrape the material down to a uniform thickness no greater than the largest aggregate size. Achieve the final texture by floating with the trowel in a figure eight motion (Fig. 3). Use a plastic float for "R" (rilled texture) finishes, including Sto Swirl Finish.



Area resurfaced with new EIFS finish

Important Note: the reinforcing mesh is not an important functional component of the resurfacing work unless:

- 1. There is a desire to increase impact resistance of the EIFS
- 2. It is needed to reinforce surface defects, such as cracking,
- or it in some way is being used to remedy other deficiencies

If neither of these conditions exist the reinforcing mesh can be omitted and the wall surface can be resurfaced with Sto RFP (followed by Sto finish). One should bear in mind that the mesh does aid in leveling the wall and in controlling thickness of Sto RFP. The decision to incorporate it into the resurfacing work should be made on a job-by-job basis.

## **Minor EIFS Repair**

### **Repair of Surface Cracks in EIFS 2.01**

Surface cracks are defined as small surface defects such as chips, spalls, or cracks that do not penetrate beyond the EIFS base coat, and in which the EIFS reinforcing mesh is not severed. If the mesh is severed see procedure no. ER 2.02. Estimated completion time for repair: < 1 man-hour (does not include drying time between coats of material).

#### **Tools Required:**

- Stainless steel trowel and margin trowel
- Plastic float
- Detail tools
- New stiff bristle paint brush

#### **Materials Required:**

- Masking tape
- Sto RFP (or other Sto base coat material)
- Sto Finish
- Clean empty buckets

#### Procedure:

**1.** Scrape or brush away loose finish or base coat material (Fig. 1). Clean if necessary to remove surface dirt.

**2.** Use a small stiff bristle paint brush to apply Sto base coat into the crack (Fig. 2). Use a wet brush to remove excess Sto base coat that gets on the face of the finish. Allow to dry.

**3.** Fill the crack with color/texture matched Sto finish (Fig. 3). Depending on texture a stiff bristle paint brush or a plastic float works best for this application. Allow to dry.

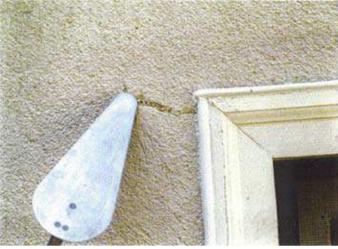


Fig. 1



Fig. 2



Fig. 3

### **Repair of Cracks in EIFS 2.02**

Cracks are not a normal occurrence in EIFS. If they do occur, usually there is some underlying reason associated with application or unanticipated stresses in the EIFS. Some application errors that can cause cracks are:

- 1. Alignment as opposed to offset of EPS board with sheathing joints
- 2. Gapping as opposed to tightly abutting EPS boards
- 3. Butting as opposed to overlapping reinforcing mesh, or insufficient mesh overlap.

Whenever cracks occur an effort should be made to diagnose the cracks so the cause is clearly understood. Then an appropriate repair method can be determined. This repair simply illustrates the mechanics of repairing an isolated crack caused by 2) or 3) above. Estimated completion time for repair: 6-8 man-hours for 20 lineal feet (6.1 m). Does not include drying time between coats.

### **Tools Required:**

- Stainless steel trowel and margin trowel
- Detail tools
- Plastic float
- Stiff bristle paint brush
- Electric drill and paddle mixer
- Sharp scoring knife
- Scraper
- Hand held grinder

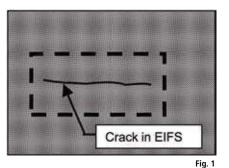
#### **Materials Required:**

- Water-based gel type paint remover\*
- Masking tape
- Sto RFP (or other Sto base coat material)
- Sto Mesh or Sto Detail Mesh
- Sto Finish
- Clean empty buckets
- Low expanding urethane spray foam

#### Procedure:

**1.** Mark the crack location in preparation for removal of the EIFS finish (Fig. 1).

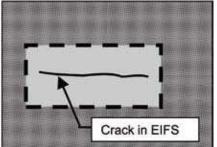
**2.** Apply a water-based gel type paint remover in the marked area



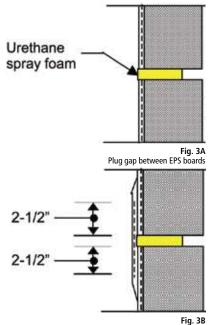
Delineate the repair area

to soften the finish and use a scraper to remove the finish after it has softened. Exercise care with the paint remover to avoid getting it onto surfaces that are not being repaired. Use coarse sand paper to remove the top layer of base coat to the mesh surface. Alternatively, a hand held grinder can be used to remove the finish, taking care not to grind or deteriorate the mesh layer (Fig. 2).

**3A.** If the cause of the crack is a gap between EPS boards. remove base coat from within the gap and fill the gap with EPS slivers or a low expanding urethane spray foam. Allow spray foam to cure. Shave or rasp flush with the surface (Fig. 3A). Then embed reinforcing mesh in Sto base coat with the mesh centered over the crack and minimum 2-1/2 inch (64 mm) overlap on each side of the crack (Fig. 3B). Feather the edges of the base coat.







#### **3B.** If the cause of

the cracks is mesh that is abutted or

Reinforce with mesh splice strip

has insufficient overlap, embed reinforcing mesh in Sto base coat with the mesh centered over the crack and minimum 2-1/2 inch (64 mm) overlap on each side of the crack (Fig. 3B). Feather the edges of the base coat.

**4.** Apply masking tape around the area to be refinished. Then apply matching Sto finish. Scrape aggregate from the masking tape with a margin trowel. Then scrape the finish tight against the wall

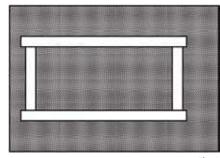


Fig. 4 Mask off area, reapply finish, remove masking tape, and blend into adjacent finish

surface. Float with a plastic float to match the adjacent texture. Remove the masking tape and use a brush to "stipple" the wet edge of the finish into the adjacent finish. Alternate between brush and float to blend the texture.

\*A product that has been found to be successful in removing EIFS finishes is  $3M^{M}$  Safest Stripper<sup>M</sup> Paint and Varnish Remover, available from:

3M Center, St. Paul, Minnesota 55144-1000 Tel: 1-800 364-3577 Web: www.3M.com

## **Repair of Puncture Damage in EIFS 2.03**

Puncture damage is defined as any damage that fractures the EIFS reinforcing mesh and deforms the surface of the EPS board. Estimated time of repair: 4 hours (does not include drying time between coats of material).

### **Tools Required:**

- Stainless steel trowel and margin trowel
- Detail tools
- Plastic float
- Stiff bristle paint brush
- Electric drill and paddle mixer
- Sharp scoring knife
- Scraper
- Coarse sand paper
- Hand held grinder

#### **Materials Required:**

- Water-based gel type paint remover\*
- Masking tape
- Sto RFP (or other Sto base coat material)
- Sto Mesh or Sto Detail Mesh
- Sto EPS Insulation Board to match thickness of existing
- Sto Primer
- Sto Finish
- Clean empty buckets
- Nails

### Procedure:

**1.** Clean the area around the damage. Apply a water-based gel type paint remover with a stiff brush to the finish in the immediate area surrounding the damage (Fig. 1A). Exercise care with the paint remover to avoid getting it onto surfaces that are not being repaired. Alternatively, a hand held grinder can be used to remove the



Fig. 1A



Fig. 1B

finish, taking care not to grind or deteriorate the mesh layer. Use a scraper to remove at least 5 inches (130 mm) around the puncture damage and to leave a sharp finished edge (Fig. 1B). Use coarse sand paper to remove the top layer of base coat to the mesh surface. 2. Cut the mesh at the damaged area so at least 2-1/2 inches (64 mm) of intact base coat and reinforcing mesh exist between the puncture damage and the finished edge (Fig. 2A). Cut EPS slightly larger than the damaged EPS and temporarily "pin" it in place with a nail (Fig. 2B). Use a sharp knife to cut through the EPS. Cut at least 1 inch (25 mm) away from the mesh cut. Cut with a slight angle so that the new EPS will be slightly larger than the hole to be plugged with it (Fig. 2C).

3. Make a clean cut to the substrate and remove the old EPS (Fig. 3A). Dry fit the new EPS to check for fit. Adjust size or re-cut new EPS if fit is not snug. "Butter" the sheathing side of the new EPS with Sto base coat along the perimeter and in the middle, then press into place (Fig. 3B). Make sure the new EPS is flush with or higher than the surface of the adjacent EPS (Fig. 3C). Allow the adhesive to dry, then rasp or sand the surface flush with the adjacent EPS and brush clean.



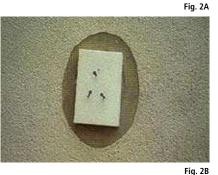




Fig. 2C





Fig. 3B



Fig. 3C

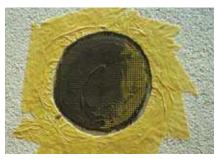


Fig. 4A



Fig. 4B



Fig. 5A



Fig. 5B

4. Cut Mesh to overlap existing mesh at least 1 inch (25 mm). Apply masking tape up to the finished edge surrounding the repair area (Fig. 4A). Apply Sto base coat and embed the mesh patch in the wet base coat and level the base coat to match the surface profile of the original base coat (Fig. 4B). Allow the base coat to dry and check the surface profile to make sure it matches the original. Apply additional base coat if necessary and allow to dry.

**5.** If Primer was used in the original installation apply Sto Primer and allow to dry.

6. Apply Sto finish (matched to existing texture and color) with a stainless steel trowel (Fig. 5A) and remove the aggregate in the finish from the masking tape (Fig. 5B). Scrape the finish tight against the wall to match the adjacent finished surface. Repeat if necessary. Then float the finish with a plastic float to match the adjacent texture.

7. Remove masking tape and use a brush to "stipple" the wet edge into the adjacent finish (Fig. 6A). Alternate between brush and float to achieve the texture match (Fig. 6B).





Fig. 6B

\*A product that has been found to be successful in removing EIFS finishes is 3M™ Safest Stripper™ Paint and Varnish Remover, available from:

3M Center, St. Paul, Minnesota 55144-1000 Tel: 1-800 364-3577 Web: www.3M.com

### **Repair of Cracks at Aesthetic Joints in EIFS 2.04**

An aesthetic joint in EIFS is defined as a joint that is scored or routed into the EIFS insulation board. Minimum <sup>3</sup>/4 inch (19 mm) of insulation board is required at the base of the joint. The joint functions as a convenient starting and stopping point for application of the EIFS finish coat. It also serves to break up the monotony of a monolithic facade and to add visual interest to the facade. Cracks at aesthetic joints sometimes occur because of failure to properly embed EIFS reinforcing mesh, build-up of excessive base coat thickness, or too little thickness of insulation board at the base of the joint. This repair illustrates how to effectively seal a crack at an aesthetic joint to prevent water intrusion. Estimated completion time for repair: < 1 man-hour for 20 lineal feet (6.1 m).

#### **Tools Required:**

- Caulking gun
- Detail tool
- New stiff bristle paint brush

#### **Materials Required:**

- Bond breaker tape
- Sealant: low modulus silicone compatible with EIFS finish

#### **Procedure:**

**1.** Clean the joint surface area. Remove dirt, algae or any other surface contamination. Generally a trisodium phosphate detergent will remove most dirt. The addition of bleach is necessary to remove algae or mildew. Refer to "Cleaning EIFS," ER No. 1.01. Allow the surface to dry.

**2.** Center bond breaker tape over the crack to prevent three-sided adhesion of the sealant.

**3.** Install the sealant material over the bond breaker tape and tool the sealant in two directions.

4. Protect from rain and freezing until dry.

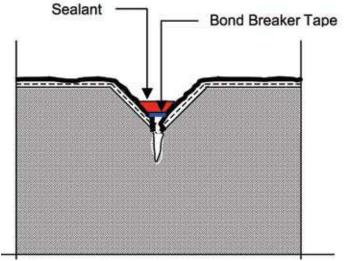


Fig. 1 EIFS aesthetic reveal with crack

### **Sealant Repairs and EIFS**

### **Removal and Replacement of Sealant at Joints in EIFS 3.01**

Sealants generally function in wall assemblies as a waterproofing component between dissimilar materials and at other joints in the wall assembly. Sealants require maintenance, and sometimes replacement, because of the effects of aging, or because of design or installation deficiencies that can cause premature failure. This repair covers the removal of sealant from an EIFS wall assembly and the preparation of joint surfaces to receive new sealant. Estimated time of completion: < 2 man-days for 100 lineal feet (30 m) of joint (does not include drying time for materials).

#### **Tools Required:**

- Stainless Steel trowel and margin trowel
- Detail tools
- Stiff bristle brush
- Electric drill and paddle mixer
- Sharp scoring knife
- Scraper
- Coarse sand paper
- Hand held grinder
- Air compressor
- Caulking gun
- Tooling knife

#### **Materials Required:**

- Water-based gel type paint remover\*
- Masking tape
- Sto RFP (or other Sto base coat material)
- Closed cell backer rod
- Sealant primer (if required)

• Low modulus silicone sealant compatible with EIFS finish

#### Procedure:

**1.** Slice along the terminating edges of the distressed sealant (Fig. 1) with a sharp scoring knife to separate it from the adjacent EIFS finish or base coat material (Fig 2). Take care not to slice into the EIFS materials.

**2.** Pull the sealant and backer rod material from the joint. Remove the

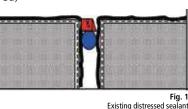




Fig. 2 Slice at the edges of the sealant

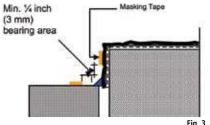
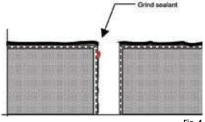


Fig. 3 Remove finish texture residue

EIFS finish (if present in the joint) by grinding with a hand held grinder or by softening the finish with a water-based gel type paint remover and then scraping to remove it (Fig. 3). Take care not to damage the EIFS finish on the face of the

wall. Mask if using gel type paint remover.

**3.** Remove residue of sealant in the joint by grinding with a hand held grinder, taking care not to damage the EIFS finish on the

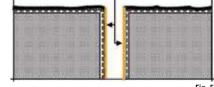




face of the wall, or to grind through the layer of base coat in the joint and damage the EIFS reinforcing mesh (Fig. 4).

**4.** Brush or blow away dust on the joint surfaces with oil-free compressed air.

**5.** Apply a skim coat of Sto base coat to the prepared joint surfaces to create a smooth surface free of ridges such that it





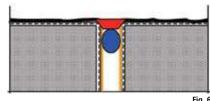
completely hides the reinforcing mesh color (Fig. 5).

Avoid heavy applications of Sto base coat. A thin coat, approximately 1/32" (0.8 mm) is sufficient. Protect Sto base coat from rain and freezing until dry.

**6.** After Sto base coat is completely dry, generally 2 days under normal (70°F, [21°C], 50% RH) conditions, prepare the joint surface for new sealant.

**7.** Brush or blow the joint surface clean with oil-free compressed air. Mask the adjacent EIFS finish on the face of the wall. Then prime with the sealant manufacturer's primer (if required) and allow to dry.

8. Install closed cell backer rod to the proper depth in the joint. Apply sealant (Fig. 6) and tool to ensure intimate contact with the joint surfaces.





9. Protect sealant from rain and freezing until dry.

\*A product that has been found to be successful in removing EIFS finishes is 3M<sup>™</sup> Safest Stripper<sup>™</sup> Paint and Varnish Remover, available from:

3M Center, St. Paul, Minnesota 55144-1000 Tel: 1-800 364-3577 Web: www.3M.com

### Repair of Sealant Joints in EIFS with Sealant "Tape" 3.02

This repair covers the repair of sealant in an EIFS wall assembly with sealant "tape". The repair is general in nature and the specific instructions of the individual sealant manufacturer should be followed in tandem with this general guide. Several sealant manufacturers\* make "tapes" that come in multiple sizes for different size joints. The "tapes" are elastic and come in a small range of colors. One of the advantages of sealant "tape" is that it does not require grinding and removal of sealant and finish from joint surfaces, as it simply spans across the existing joint like a Band-aid. Estimated time of completion: < 1 man-day for 100 lineal feet (30 m) of joint (does not include drying time for materials).

### **Tools Required:**

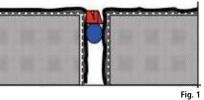
- Caulking gun
- Detail tool
- New stiff bristle paint brush
- Vinyl roller

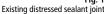
### **Materials Required:**

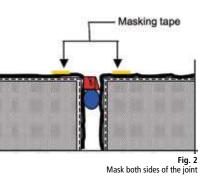
- Bond breaker tape
- Sealant primer (if required)
- Sealant adhesive
- Sealant "tape"

### Procedure:

**1.** Clean the EIFS finish surfaces adjacent to the distressed joint with a trisodium phosphate detergent solution of warm water (and bleach if necessary) to remove dirt, algae, mold and any other surface contamination. Refer to "Cleaning EIFS", ER No. 1.01. After cleaning the surface rinse thoroughly with clean water and allow to dry.







**2.** Hold a small piece of the sealant tape so it is centered over the joint that it will span and mark the finish at the edges of the sealant tape. Mask the surfaces immediately adjacent to the marks along the length of the joint (Fig. 2).

**3.** Prime the surfaces immediately adjacent to the joints with the sealant manufacturer's primer. Take care not to prime surfaces that will not be covered with sealant tape.

**4.** Apply two parallel beads of the sealant manufacturer's adhesive slightly to the inside (joint side) of the masking tape along each side of the joint (Fig. 3).

**5.** Immediately unroll and lay the sealant tape into the wet adhesive and press into place with a vinyl roller. Remove any adhesive that squeezes past the edges of the sealant tape. Then remove the masking tape and tool the adhesive

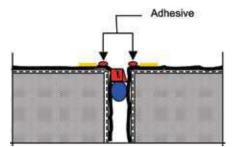


Fig. 3 Prime the surfaces adjacent to the joint and apply two parallel beads of adhesive to the surfaces

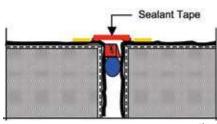


Fig. 4 Press the sealant tape into place with a vinyl roller. Remove excess adhesive, then remove masking tape and tool excess adhesive along the edges of the sealant tape

along the edges of the tape (Fig. 4). Protect the adhesive from rain and freezing until dry.

\*Note: Manufacturers who make sealant tapes are:

- Dow Corning 123 Silicone Seal, Dow Corning Corp., Auburn, MI 48611 Tel: 517-496-6000 Web: www.dowcorning.com
- Pecora SilSpan<sup>™</sup>, Pecora Corp., 165 Wambold Road, Harleysville, PA 19438 Tel: 215-723-6051 Web: www.pecora.com

## Installation of Perimeter Fillet Seal at EIFS Abutting Window 3.03

This repair covers the installation of sealant where EIFS abuts a dissimilar surface such as a window jamb. In some cases a proper gap for a sealant joint may not have been provided in the original construction, and instead, the EIFS tightly abuts the adjoining element without any sealant. In such cases one repair option is to seal between the EIFS and the abutting element with a fillet seal. The fillet seal generally does not have as much movement capability as the traditional hourglass sealant configuration, so this type of repair should be restricted to joints of limited movement, and its main function will be to provide a weather seal. Also important is the requirement for sufficient joint surface bearing area on both sides of the joint. The EIFS has to stand out beyond the plane of the adjoining element at least 1/2 inch (13 mm) (or vice versa, the adjoining element has to stand out) in order for the fillet seal to be formed. This repair cannot be done with flush construction, i.e., where the outside surface of the EIFS and the abutting element are in the same plane. Always consult the sealant manufacturer's product information for proper use and handling, precautions and limitations of products. Estimated time of completion: < 1 man-day for 130 lineal feet (40 m) of joint (does not include drying time for materials).

### **Tools Required:**

- Caulking gun
- Detail tool
- New stiff bristle paint brush

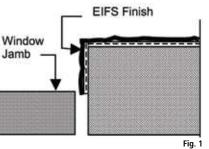
#### Materials Required:

- Masking tape
- Bond breaker tape or triangular backer rod\*
- Sealant primer (if required)
- Low modulus silicone sealant compatible with EIFS finish

#### Procedure:

1. Clean the EIFS finish surface and window jamb surface with a trisodium phosphate detergent solution of warm water to remove dirt,

algae, mold and any

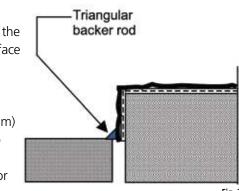


Existing condition with EIFS abutted to window jamb and no sealant

other surface contamination (Fig. 1). Refer to "Cleaning EIFS", ER No. 1.01. After cleaning rinse thoroughly with clean water and allow to dry.

**2.** Place bond breaker tape or triangular backer rod at the joint cove (Fig. 2).

**3.** Mask the EIFS finish surface and the window jamb surface at the outer edge where the sealant will terminate. At least 1/4 inch (6 mm) of bearing area to each surface is required (Fig. 3) for

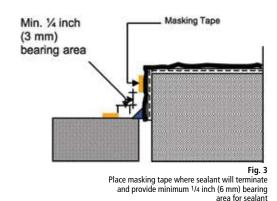


the sealant to adhere.

Fig. 2 Place triangular backer rod at cove of joint

**4.** Prime the joint surfaces with the sealant manufacturer's primer (if required). Take care not to prime surfaces that will not be covered with sealant.

5. Apply the sealant with a caulking gun, then tool the sealant. Remove the masking tape and tool or clean any sealant that gets on the adjacent finished wall surface (Fig. 4). Protect the sealant from rain and freezing until dry.



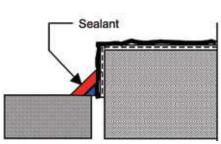


Fig. 4 Prime joint surfaces, apply sealant, tool and remove excess. Remove masking tape

\*Note: Backer rod can be obtained from several sources:

- Wind-lock<sup>™</sup> Corp., 1055 Leisz's Bridge Road, Leesport, PA 19355 Tel: 1-800-USA-LOCK (872-5625) Web: www.wind-lock.com
- Demand Products, Inc., 1055 Nine North Drive, Alpharetta, GA 30004 Tel: 1-800-325-7540 Web: www.demandproducts.com

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