BASIC USES

Pecora 890NST is designed primarily for sealing expansion and control joints in precast concrete panels, architectural and natural stone, metal curtainwalls, perimeter sealing of doors and windows, Exterior Insulation Finish Systems (EIFS) and numerous other areas requiring a high-performance sealant. It adheres tenaciously to concrete, natural stones, masonry, steel, fluoropolymer painted and powder coated aluminum, wood, vinyl and many other plastics, generally without need for a primer, and performs equally well in new or remedial construction.

MANUFACTURER

Pecora Corporation
165 Wambold Road
Harleysville, PA 19438
Phone: 215-723-6051
800-523-6688
Fax: 215-721-0286
Website: www.pecora.com

PRODUCT DESCRIPTION

Pecora 890NST is a one-part, neutral-curing, ultra low-modulus silicone sealant that will not stain natural stone such as marble and granite and that reacts with atmospheric moisture to form a durable, flexible building sealant. Pecora 890NST performs exceptionally well under dynamic conditions due to its ultra-low modulus, high extension/compression, recovery properties and strong adhesion to most building materials and accommodates long-term movement of +100/-50% in properly designed joints.

Harsh weather conditions, rain, sleet, snow, sunlight and extreme temperatures, high ozone concentrations and/or exposure to intense ultraviolet rays have very little effect on the ultimate performance of Pecora 890NST even after years of such exposure.

Pecora 890NST is particularly well suited for use in Exterior Insulation Systems (EIFS) because of its proven strong adhesion to all base and top coats and because its ultra-low modulus formulation places minimal stress on the bond line. Additionally, Pecora 890NST is available in many of the more popular EIFS colors.

Limitations: Pecora 890NST should not be used in the following applications:

- Sealing horizontal decks, patios, driveway or terrace joints where abrasion or physical abuse is encountered.
- Below grade or sealing submerged joints or below the waterline in marine uses.
- In totally confined or air-free spaces since moisture is necessary for cure.
- In designs that will be painted after application of the sealant. Sealant should be applied after painting is completed.
- In structural glazing applications.
- On surfaces with special protective or decorative coatings without prior consultation with Technical Services.
- With building materials that bleed oils, plasticizers or solvents, i.e. impregnated wood, oil-based caulks, some vulcanized rubber gaskets or tapes, etc.
- In interior penetration firestop systems.
- On surfaces in direct contact with food. For such applications, use of Pecora 860 silicone with FDA approval is recommended.

PACKAGING

- 10.1 fl. oz. (300 ml) plastic cartridges
- 20 fl. oz. (592 ml) sausages
- 2-gallon (7.57 L) pails

COLOR

- Unlimited range of custom colors. (certain restrictions may apply).

Since Pecora Architectural Sealants are applied to varied substrates under diverse environmental conditions and construction situations it is recommended that substrate testing be conducted prior to application.

**TABLE 1: TYPICAL UNCURED PROPERTIES**

<table>
<thead>
<tr>
<th>TEST PROPERTY</th>
<th>VALUE</th>
<th>TEST PROCEDURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow, Sag, Slump (in.)</td>
<td>&lt;0.1</td>
<td>ASTM C639</td>
</tr>
<tr>
<td>Tool/Work Time (minutes)</td>
<td>15-25</td>
<td>Pecora Corporation</td>
</tr>
<tr>
<td>Tack Free Time (hours)</td>
<td>1-2</td>
<td>ASTM C679</td>
</tr>
<tr>
<td>Cure Time (days)</td>
<td>7-14</td>
<td>Pecora Corporation</td>
</tr>
<tr>
<td>Full Adhesion (days)</td>
<td>7-14</td>
<td>Pecora Corporation</td>
</tr>
<tr>
<td>VOC Content (g/l)</td>
<td>98</td>
<td>EPA Method 24</td>
</tr>
<tr>
<td>SCAQMD Rule #1168*</td>
<td>&lt;50</td>
<td></td>
</tr>
<tr>
<td>VOC Emissions (TVOC)</td>
<td>&lt;2 ug (0.002 mg/Cu m)</td>
<td>COMPI v1.1-2010 (CA Specification 01350)</td>
</tr>
</tbody>
</table>

**TABLE 2: TYPICAL CURED PROPERTIES**

After 7 days cure at 77°F (25°C), 50% R.H.

<table>
<thead>
<tr>
<th>TEST PROPERTY</th>
<th>VALUE</th>
<th>TEST PROCEDURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardness (Shore A)</td>
<td>20</td>
<td>ASTM C661</td>
</tr>
<tr>
<td>Elongation (%)</td>
<td>1000</td>
<td>ASTM D412</td>
</tr>
<tr>
<td>Modulus @ 100% Elongation (psi)</td>
<td>30</td>
<td>ASTM D412</td>
</tr>
<tr>
<td>Ultimate Tensile Strength (psi)</td>
<td>120</td>
<td>ASTM D412</td>
</tr>
<tr>
<td>Tear Strength (psi)</td>
<td>30</td>
<td>ASTM D624</td>
</tr>
<tr>
<td>Peel Strength (psi) on aluminum, glass, and concrete</td>
<td>25</td>
<td>ASTM C794</td>
</tr>
<tr>
<td>Dynamic Movement Capability (%)</td>
<td>+100-50</td>
<td>ASTM C719</td>
</tr>
<tr>
<td>Ozone/UV Resistance</td>
<td>Excellent</td>
<td>Weatherometer</td>
</tr>
<tr>
<td>Staining of porous substrates such as white marble</td>
<td>Pass</td>
<td>ASTM C1248</td>
</tr>
<tr>
<td>Service Temperature Range °F</td>
<td>-60 to +300</td>
<td>Pecora Corporation</td>
</tr>
</tbody>
</table>
TECHNICAL DATA
Applicable Standards: Pecora 890NST Silicone meets or exceeds the requirements of the following industry specifications; TT-S-230C, Class A, ASTM C-920, Class 100, Type S, Grade NS, Use G.A.M.O and CGSB-19GP-9, ASTM C-1248, CAN/CGSB-19.13-M87.

Joint Design: Proper sealant dimensions are critical when installing elastomeric joint sealants. Generally, a sealant width-to-depth ratio of 2:1 is recommended. Dynamic joint conditions will require a minimum 1/4" width and 3/16" depth in order to maintain the sealant’s movement capabilities. For joints greater than 1" wide, consult Technical Service. The width of building expansion joints varies because of seasonal and daily changes in temperature. If Pecora 890NST cannot be installed when the design width is approximately halfway between the dimensional extremes, the designed joint must be at least twice the total anticipated joint movement. Good architectural practice calls for joint design of four times the anticipated movement due to construction tolerances and material variations.

INSTALLATION
Surface Preparation: Clean all joints and glazing areas by removal of foreign matter and contaminants such as oil, dust, grease, frost, water, surface dirt, old sealants or glazing compounds and any protective coating. Porous substrates and precast concrete panels using form release agents other than polyethylene film should be cleaned by grinding, saw cutting, blast cleaning (water or sand), mechanical abrading or a combination of these methods which will provide a sound, clean and dry surface for sealant application. Dust, loose particles, etc. should be blown out of joints with oil-free compressed air or vacuum cleaned. Metal, glass and plastic surfaces should be cleaned by solvent procedure or by mechanical means. Soap or detergent and water cleaning treatments are not recommended. Cleaning of all surfaces should be done on the same day on which the sealant is applied.

CAUTION: Solvents may be toxic and/or flammable. Refer to solvent manufacturer’s instructions or Safety Data Sheets (SDS).

Priming: Pecora 890NST does not require priming on most common substrates. However, Pecora strongly suggests adhesion pretesting, either in the field or in Pecora’s laboratory on all porous substrates, particularly brick, as well as unusual building materials and other substrates where special coatings or surface treatments may impair optimum adhesion. Where primer is indicated, P-150 should be used on porous substrates and P-120 on special metal and plastic surfaces. All precast substrates require priming with P-225 primer. All EIFS substrates require priming with P-75 or P-150 primer. Contact Technical Services department for primer use on other substrates.

To assist in this determination Pecora has a list of adhesion-in-peel test results on a wide variety of substrates and building materials which is available on request from our Technical Services department.

Pecora routinely conducts project specific adhesion and compatibility tests in its laboratory on representative substrate samples. Consult Technical Services for details.

Joint Backing: Backer rod controls the depth of the sealant and allows it to be applied under pressure. Use a size that will compress 25%. Denver Foam open-cell polyurethane or reticulated (soft) polyethylene rod is recommended. Closed-cell polyethylene may be used but care must be taken not to puncture the rod which can cause outgassing or bubbling/blistering in the sealant. Open-cell polyurethane is required with non-porous substrates to allow proper curing from both sides of the sealant. In joints too shallow for backer rod, use a polyethylene bond-breaker tape to prevent three-sided adhesion.

Application: All joints should be masked to ensure a neat appearance and prevent sealant applied outside the joint confines from imparting a discoloration to the substrate.

EXAMPLES OF DIFFERENT JOINTS

<table>
<thead>
<tr>
<th>GOOD</th>
<th>POOR</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Example of a good joint" /></td>
<td><img src="image2.png" alt="Example of a poor joint" /></td>
</tr>
<tr>
<td><strong>Principle:</strong> The lap joint will withstand total movement in either direction equal to or less than width W.</td>
<td><strong>Principle:</strong> The lap joint will not withstand total movement in either direction equal to or less than width W.</td>
</tr>
<tr>
<td>Note width-depth ratio, concave surfaces, and non-adhering back-up material.</td>
<td>Too deep, poor shape, sealant adheres to bottom side.</td>
</tr>
<tr>
<td>Bond breaker tape prevents adhesion of bottom side.</td>
<td>Bond breaker is not used.</td>
</tr>
<tr>
<td>Joint has sufficient bulk (width) to withstand shear.</td>
<td>Joint has insufficient bulk.</td>
</tr>
</tbody>
</table>
| To withstand 1/8" movement, existing 3/16" joint was widened to 1/2". | A. Too deep exceeds the width
B. Although shape is good, 3/16" width cannot withstand 1/8" movement. |
Typical Applications for
Pecora 890NST Ultra-Low Modulus Silicone Sealant

EXPANSION JOINT

Pecora 890NST

MASONRY

Backer Rod

Pecora 890NST Weatherseal

WINDOW FRAME

EXPANSION JOINT

Pecora 890NST

Natural Stone
Sealant should be applied in a continuous operation using sufficient pressure to fill the joint and make complete contact to the joint sides. Tool the sealant slightly concave using solvent or dry-tooling techniques. Contact Technical Services prior to tooling with solvent. Do not tool with soap or detergent and water solutions.

**Tool Time:** (Initial Skin): 15-25 minutes at 77° F (25° C), 50% RH. Higher temperatures and/or humidity will shorten this time.

**Clean Up:** Immediately remove all excess sealant and smears adjacent to joints with mineral spirits. For equipment cleanup, also use mineral spirits. Consult manufacturer’s Safety Data Sheet for handling and safety precautions.

**Shelf Life:** Pecora 890NST has a shelf life of twelve months from date of manufacture when stored at temperatures lower than 80° F (27° C).

**Precautions:** Use with adequate ventilation or wear an appropriate NIOSH-approved respirator. Contact with uncured sealant or with vapors generated during curing may cause respiratory tract irritation. Contact with skin or eyes may cause irritation or allergic reaction. Avoid contact and wash thoroughly after handling. May be harmful if swallowed. Refer to Safety Data Sheet (SDS) for more information.

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**AVAILABILITY AND COST**

Pecora products are available from stocking distributors nationwide. For the name and telephone number of your nearest representative, call the number below or visit our website at www.pecora.com.

**WARRANTY**

Pecora Corporation warrants its products to be free of defects. Under this warranty, we will provide, at no charge, replacement materials for, or refund the purchase price of, any product proven to be defective when used in strict accordance with our published recommendations and in applications considered by us as suitable for this product. The determination of eligibility for this warranty, or the choice of remedy available under this warranty, shall be made in our sole discretion and any decisions made by Pecora Corporation shall be final. This warranty is in lieu of any and all other warranties, expressed or implied, including but not limited to a warranty of merchantability or fitness for a particular purpose and in no case will Pecora be liable for damages other than those expressly stated in this warranty, including but not limited to incidental or consequential damages.

**MAINTENANCE**

If the sealant is damaged and the bond is intact, cut out the damaged area and recaulk. No primer is necessary. If the bond has been affected, remove the sealant, clean and prepare the joint in accordance with the instructions under "INSTALLATION".

**TECHNICAL SERVICES**

Pecora representatives are available to assist you in selecting an appropriate product and to provide on-site application instructions or to conduct jobsite inspections. For further information and assistance, please call our Technical Services department at 215-723-6051 or 800-523-6688.

**FILING SYSTEMS**

• CSI MasterFormat Designation – 07 92 00 Joint Sealants

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DON’T STAIN YOUR REPUTATION™ - Pecora NST Non-Staining Technology

Pecora is a member of and supports: SWRI, CSI, AIA, ICRI, ABAA, USGBC, IPI.

Pecora products are proudly made in America.

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