

BASIC USES

For sealing expansion and control joints in precast concrete panels, masonry and metal curtainwalls, natural stones, perimeter sealing of doors and windows, and other building components.

MANUFACTURER

PECORA CORPORATION

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PRODUCT DESCRIPTION

Pecora 864NST is one-part, low-modulus, neutral-curing, high-performance silicone sealant that cures via atmospheric moisture to form a durable, flexible building seal. Pecora 864NST will not stain natural stone such as marble and granite. Because of its low-modulus, high extension/compression and recovery properties, and its strong adhesion to most building materials, Pecora 864NST performs exceptionally well under dynamic conditions accommodating long-term movement of ±50% in properly designed joints.

Limitations:

Pecora 864NST should not be used in the following applications:

- Sealing horizontal decks, patios, driveway or terrace joints where abrasion or physical abuse is encountered.
- Sealing submerged joints or below the waterline in marine applications.
- In totally confined or air-free spaces.
- In designs that will be painted after application of the sealant. (Sealant should be applied after painting is completed).
- To surfaces with special protective or decorative coatings without prior consultation with Technical Services department.
- With building materials that bleed oils, plasticizers or solvents, i.e. impregnated wood, oil-based caulks, some vulcanized rubber gaskets or tapes, etc.

Fire Rated Systems:

Two-hour fire and temperature rated wall Design U900 O (WWS 0010, WWS 0038) and floor Design J900H (FFS 0006) joint systems up to 3/4" (19 mm) wide can be designed with Ultra Block® fire blocking material.

Ref: Standard Fire Tests of Building Construction Materials, ANSI/UL 263, ASTM E119, NFPA #251.
Ultra Block® is a product of Backer Rod Mfg. Co., Denver, CO.

PACKAGING

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

COLOR

- Black, Limestone, Precast, Charcoal Gray, Sandstone, Red Rock, Hartford Green, Tru-White, Aluminum Stone, Beige, Classic Bronze, Natural Stone, Anodized Aluminum.
- Custom colors are available in 30 gallon minimum quantities.

TABLE 1: TYPICAL UNCURED PROPERTIES (AT 77°F, (25°C), 50% RH)

TEST PROPERTY	VALUE	TEST PROCEDURE
Flow, Sag, Slump (inches)	< 0.1	ASTM C639
Tool/Work Time (minutes)	15-25	Pecora Corporation
Tack Free Time (hours)	1-2	ASTM C-679
Curing Time (days)	7-14	Pecora Corporation
Full Adhesion (days)	7-14	Pecora Corporation
VOC Content (g/L)	<50	EPA Method 24
VOC Emissions (TVOC)	<2 ug (0.002 mg)/cu m	CDPH v1.1-2010 (CA Specification 01350)

TABLE 2: TYPICAL CURED PROPERTIES (AFTER 7 DAYS CURE AT 77°F, (25°C), 50% RH)

TEST PROPERTY	VALUE	TEST PROCEDURE
Hardness, Shore A	25	ASTM C661
Elongation (%)	900	ASTM D412
Modulus @ 100% Elongation (psi)	38	ASTM D412
Ultimate Tensile Strength (psi)	175	ASTM D412
Tear Strength (ppi)	35	ASTM D624
Peel Strength (pli)	30	ASTM C794
on Aluminum, Glass and Concrete		
Dynamic Movement Capability (%)	+/-50	ASTM C719
Ozone/UV Resistance	Excellent	Weatherometer
Staining of porous substrates such as white marble	Pass	ASTM C1248
Service Temperature Range (degree F)	-60 to 300	Pecora Corporation

TECHNICAL DATA

Applicable Standards: Pecora 864NST Silicone meets or exceeds the requirements of the following industry specifications; TT-S-230C, Class A. ASTM C-920, Class 50, Type S, Grade NS, Use G,A,M,O and CGSB-19GP-9, ASTM C-1248.
Acceptance by U.S. Department of Agriculture for use in meat and poultry processing plants.

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", consult Technical Services. Lap shear joints should have a bead width which is equal to or greater than the total anticipated movement. Small curtainwall panels and lites should allow a minimum width of 1/4" (6 mm) for the sealant bead. Larger panels for which a great deal of movement is expected should allow a minimum width of 1/2" (12 mm) for the sealant bead. Glazing of plastic lites and panels fabricated from plastic require larger than usual joint dimensions due to the plastics high coefficient of thermal expansion.

The width of building expansion joints varies because of seasonal and daily changes in temperature. If Pecora 864NST silicone cannot be installed when the design width is approximately half-way 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 864NST does not require priming on most common substrates. However, we strongly suggest adhesion pretesting, either in the field or our 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.









Also, Pecora offers complimentary adhesion and stain testing in its laboratory on actual field samples of substrate from the jobsite or on representative samples from the same lots. Contact 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.

In joints too shallow for backer rod, use a polyethylene bond-breaker tape to prevent three-sided adhesion.

EXAMPLES OF DIFFERENT JOINTS

GOOD	POOR
 <p>Note width-depth ratio, concave surfaces, and non-adhering back-up material.</p>	 <p>Too deep, poor shape, sealant adheres to bottom side.</p>
 <p>Bond breaker tape prevents adhesion of bottom side.</p>	 <p>Bond breaker is not used.</p>
<p>Principle: The lap joint will withstand total movement in either direction equal to or less than width W.</p>	
 <p>Joint has sufficient bulk (width) to withstand shear.</p>	 <p>Joint has insufficient bulk.</p>
 <p>To withstand 1/8" movement, existing 3/16" joint was widened to 1/2".</p>	 <p>A. Too deep exceeds the width B. Although shape is good, 3/16" width cannot withstand 1/8" movement.</p>

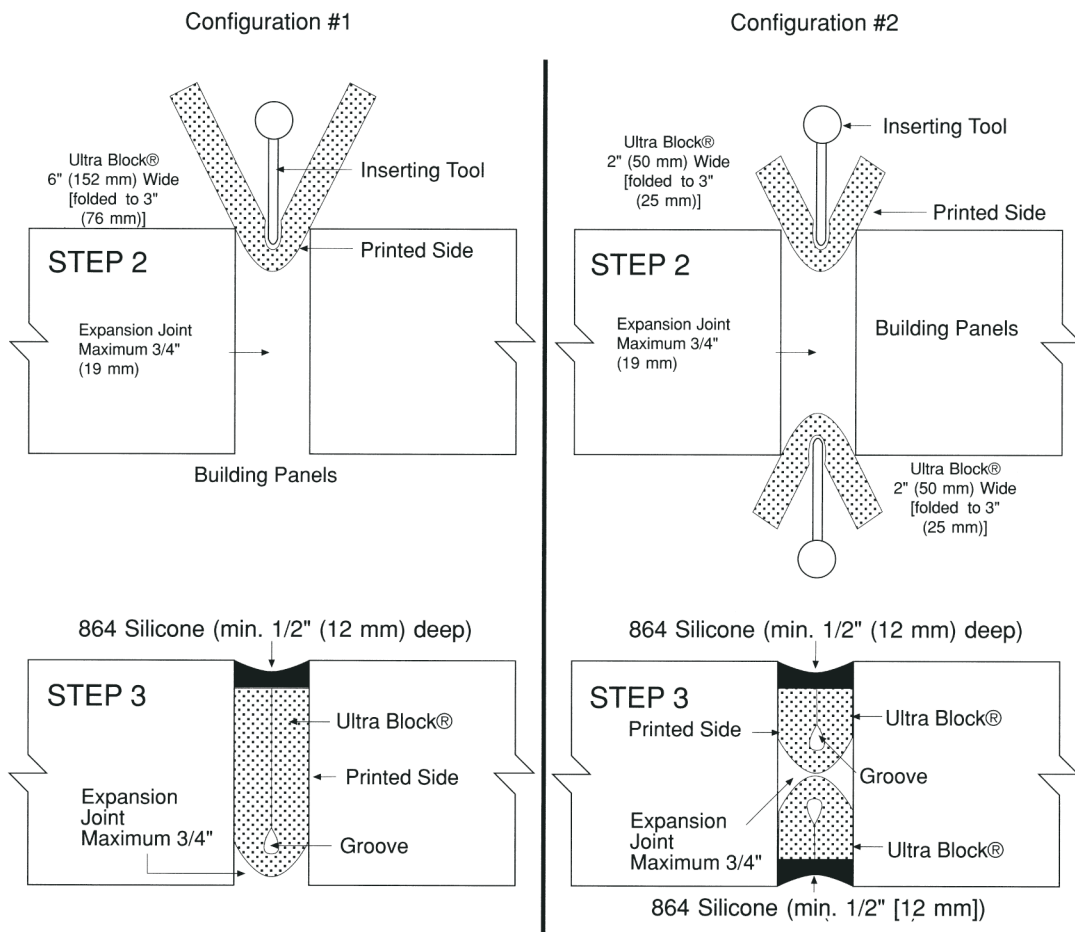
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SUGGESTED PECORA 864NST - ULTRA BLOCK® SYSTEM SPECIFICATION

Expansion joints shall have a 2-hour Fire and Temperature rating. Unless otherwise specified for a specific area, only system tested per ASTM E-119 Standard, complying with Underwriters Laboratories U/L-263, Designs FFS 0006, WWS 0010, and WW-S-0038 classified as 2-Hour Fire & Temperature Rated are approved. Pecora 864NST - Ultra Block® systems using such classified sealants shall be used in both Configuration #1 and Configuration #2 whichever is applicable. Reference U/L File #13729.

This is a performance specification. Bidders will be required to furnish technical data and Underwriters Laboratories reports for "or equal" approval.

INSTALLATION PROCEDURES



CLASSIFIED

PECORA 864NST - ULTRA BLOCK® UL Rated Wall and Floor Expansion Joint System

This system should be used in high rise office buildings, hospitals, schools, hotels, prisons, enclosed sports arenas, airport terminals, shopping malls, nursing homes, manufacturing plants, precast and prestressed concrete structures, parking garages, warehouses, chemical plants, elevator shafts and others to comply with existing building and fire codes. The system will effectively contain fire, smoke and toxic fumes within a given area surrounded by fire walls for a 2-hour period, thereby enabling a safe and orderly evacuation of the surrounding areas.

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. 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 dry-tooling techniques. Consult 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% relative humidity. Higher temperatures and/or humidity will shorten this time.

Cleaning: Immediately remove all excess sealant and smears adjacent to joints with mineral spirits. Also use mineral spirits for removing uncured sealant from equipment. Remove cured sealant by scraping, sandpapering, etc. (Caution: mineral spirits is flammable and toxic. Observe manufacturer's precautions.)

Shelf Life: Pecora 864NST has a shelf life of twelve months from date of manufacture when stored in unopened cartridges or sausages at temperatures lower than 80° F (27° C), or nine months in tightly sealed bulk packages 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.

**FOR PROFESSIONAL USE ONLY.
KEEP OUT OF THE REACH
OF CHILDREN.**

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 Designations:
 - 07 84 43 – Joint Firestopping
 - 07 92 00 – Joint Sealants

**DON'T STAIN YOUR
REPUTATION® - Pecora NST
Non-Staining Technology**

SWRI
INSTITUTE

**SEALANT • WATERPROOFING
& RESTORATION INSTITUTE**

Issued to: **Pecora Corporation**
Product: **864NST Silicone**

C719: Pass Ext:+50% Comp:-50%

Substrate: unprimed anodized aluminum, mortar (concrete) primed with P-225 Primer, and unprimed glass.

Validation Date: 6/12/23 - 6/11/28

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SEALANT VALIDATION
www.swrionline.org