

### BASIC USES

- Dynatrol® II is designed for use in expansion and control joints in precast panels, tilt walls and curtainwalls; bedding panels, coping joints, window and door perimeters, glazing, traffic, acoustical, firestopping, and applications requiring jet fuel resistance. Its wide color range and low modulus make it highly effective in exterior insulated finish systems (EIFS).

### MANUFACTURER

#### Pecora Corporation

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### PRODUCT DESCRIPTION

Dynatrol® II is a general purpose non-sag elastomeric sealant that creates a tenacious bond and watertight seal between materials of similar or dissimilar surface textures, porosities or expansion coefficients.

**Fire Rated Systems:** Four-hour fire and temperature rated wall and floor Design Joint systems up to 3" (75 mm) wide can be designed with Ultra Block® fire-blocking material and/or mineral wool fire safing. These designs have been full scale tested and classified by Underwriters Laboratories, Inc. and appear in the UL Fire Resistance Directory, Vol. 2.

**Ref:** Standard "Fire Tests of Building Construction Materials," ANSI/UL 263, ASTM E119, NFPA No. 251. Consult Pecora Technical Bulletin #85J (PEC201) for a complete listing of Pecora Firestop Systems. Ultra-Block® is a product of Backer Rod Mfg. Co., Denver, CO.

**Limitations:** Dynatrol® II should not be used:

- over existing acrylic coatings without prior approval of mock up and associated field testing,
- light colors can yellow if exposed to direct gas fired heating elements during the initial cure period,
- as a cap, heel or toe bead in glazing systems utilizing high-performance glass or acrylic polycarbonate sheet,
- in areas exposed to harsh chemicals.
- light colors may yellow in interior applications subject to fluorescent lighting or high levels of VOC's,
- when in direct contact with substrates that contain asphaltic or bituminous compounds,
- when installation surface temperatures exceed 120°F.

### TECHNICAL DATA

Federal Specification TT-S-00227E, Class A, Type II, SS-S-200E, Type M; ASTM C-920, Type M, Grade NS, Class 50, use M.A.G.T1, and Other, CAN/CGSB-19.24-M90.

Dynatrol® II will withstand structural movement of 50% in extension and 50% in compression without adhesive or cohesive failure in properly designed joints. Dynatrol® II also exceeds the test requirements of ASTM C1247 for Sealants Exposed to Continuous Immersion in Liquids.

**Joint Design:** Good joint design in the construction industry dictates four times (4x) the anticipated movement of building components be used when calculating joint width. The theoretically derived 2:1 movement factor is based on thermal movement alone and does not allow for variances found at the jobsite and therefore should not be used.

The 4:1 design factor accommodates both thermal movement and wide variations in tolerances of construction materials, fabrication and erection often found in the field. This will also accommodate joints installed narrower than originally designed. The width or depth of the joint should not be less than ¼" (6 mm). In joints up to ½" (12 mm) wide, the depth of the sealant should be equal to the width. In joints wider than ½" (12 mm) but not exceeding 2" (50 mm), the depth should be maintained at ½" (12 mm). For joints wider than 2" (50 mm), please consult our Technical Services department. Please refer to Technical Bulletin 104 for guidelines specific to applications exposed to pedestrian or vehicular traffic. Joint sealants do not change volume with expansion or compression -only shape; the greater the change in shape (strain), the greater the stress on the sealant and bond line.

### PACKAGING

- 1 ½-gallon (347 cu. in.) (5.7 L) unit including Base and Activator
- Color Pack is packaged separately

### COLOR

- Pecora's Color-Pack system has pre-measured tint paste for 51 standard colors.
- Custom colors are available upon request: minimum 5 color packs.
- The base material is not to be used without addition of color.
- Also available in pre-tinted limestone - this version eliminates need for color pack.

### INSTALLATION

**Surface Preparation:** Joint surfaces must be dry, clean and free of all contamination. Glass, metal and other nonporous surfaces must be free of any coatings and wiped clean with solvent. Precast panels using form-release agents other than polyethylene film must be sandblasted or mechanically abraded and blown or brushed dust free.

**Priming:** Not required on glass or anodized aluminum and usually not necessary on most other common building materials. However, varieties of brick, natural stone, plastics, paints, coatings and other surface treatments often present the need for priming. Due to the number and unpredictable nature of these substrates, a field or laboratory test is recommended to determine the adhesion of Dynatrol® II with or without primer. When priming is indicated, P-75 or P-150 should be used on porous substrates and P-120

#### TYPICAL PHYSICAL PROPERTIES at 77°F (25°C), 50% RH

| Test Property                            | Value                            | Test Procedure       |
|------------------------------------------|----------------------------------|----------------------|
| Dynamic Movement Capability (%)          | +/-50                            | ASTM C719            |
| Bond to Concrete:***                     |                                  |                      |
| Non-Immersion                            | Pass, no bond loss               | Fed. Spec. SS-S-200E |
| Immersion                                | Pass, no bond loss               | Fed. Spec. SS-S-200E |
| Fuel-Immersion                           | Pass, no bond loss               | Fed. Spec. SS-S-200E |
| Adhesion-in-peel (pli)                   | 28, (4.8 kN/m) No adhesion loss* | ASTM C794            |
| Adhesion-in-peel after UV exposure (pli) | 28, (4.8 kN/m) No adhesion loss  | ASTM C794            |
| Application Life (hours)                 | 2                                | ASTM C603            |
| Effect of acceleration weathering        | No cracking                      | ASTM C793            |
| Effect of heat aging (%)                 | 1.4                              | ASTM C792            |
| Extrusion rate (seconds)                 | 4                                | ASTM C603            |
| Hardness, Shore A                        | 25-35                            | ASTM C661            |
| Rheological properties                   | 0                                | ASTM C639            |
| Stain & color change                     | None                             | ASTM C510            |
| Tack-free time (hours)                   | Min. 72 hrs.                     | ASTM C679            |
| Service Temperature                      | -20°F to 180°F                   | Pecora Corporation   |
| Application Temperature****              | 20°F to 120°F                    | Pecora Corporation   |
| VOC Content Mixed Product (g/L)          | <1                               | ASTM D3960           |
| VOC Emissions (TVOC)                     | Pass (All Exposure Scenarios)    | CDPH v1.2-2017       |

\* Aluminum, glass and primed concrete substrates. \*\* When tested for +50% movement. \*\*\*P-75 or P-200 primer required. \*\*\*\*Applies to both ambient and substrate temperatures.

# DynaTrol® II

## General Purpose Polyurethane Sealant



## SPECIFICATION DATA SHEET

on nonporous substrates or consult Technical Services. All primers and sealants to be used in accordance with local VOC regulations. Sealant should be applied within 8 hours after priming; otherwise, it will be necessary to reprime.

All Exterior Insulation Finish Systems must be primed with P-75 or P-150. Consult Pecora Technical Services for specific EIFS recommendations.

Also, because architectural stones such as marble and granite vary considerably in porosity, some bleeding of the sealant into the substrate is a possibility. Again, a field or laboratory test to confirm this possibility is recommended.

Pecora offers complimentary adhesion, compatibility and stain testing in its laboratory on actual field samples of substrate from the jobsite or on project specific representative samples. Contact Technical Services for details.

**Joint Backing:** Backer rod controls the depth of the sealant and allows it to be applied under pressure. Closed-cell polyethylene or bi-cellular polyolefin foam is recommended. Use a size that will compress 25% when inserted into the joint. In joints too shallow for backer rod, use a bond-breaker tape to prevent undesirable three-sided adhesion.

**Mixing:** Activator and base components are packaged in exact ratio for use. The addition of a Pecora universal color pack is required if using the field-tintable neutral base. Use one (1) Pecora universal color pack per 1.5-gallon unit. Extrude entire contents of color pack and mix into base along with the activator. Mix all components as supplied using an Albion Engineering model 381-G04 mixing paddle (refer to illustration below) or comparable.



Do not attempt to mix partial units and risk the probability of a partially or non-curing sealant. **Thoroughly mix the activator, base, and colorants for (3) minutes using a variable speed, heavy-duty drill. Stop mixing and thoroughly scrape any unmixed material from sides and bottom of pail using a bucket scraping tool. Continue to mix for an additional (3) minutes not exceeding a total (6) six-minute mixing time.** Avoid over-mixing which can entrain air in the sealant causing bubbling and blistering.

**Application:** Do not thin with solvents or adulterate the mixed material in any way. Apply sealant to joints, using standard caulking equipment. Application life is 2 hours at 77° F (25° C), 50% R.H. Sealant should be installed when ambient and substrate temperatures are between 20°F to 120°F. Higher temperature and/or humidity will shorten the application life.

In control and construction joints in interior industrial flooring subjected to fork truck traffic, Pecora DynaFlex two part high durometer urethane is recommended for better protection against joint edge spalling. In areas of pedestrian traffic where firmersupport and resistance to puncture (i.e. high heels) is considered more important than elongation and flexibility, Pecora Dynaflex two-part, non-sag polyurethane sealant with a 55 Shore A hardness is recommended.

**Tooling:** Tool immediately to assure full adhesion. Tooling without a slicking agent is preferred but if conditions require one, mineral spirits is recommended. (See Caution statement.)

**Painting:** Due to variability in paint products and their raw materials, installation conditions, installation techniques as well as primers, it is required that contractors who apply paint, pretest paint onto sealant, to determine suitability. Oil based paints can exhibit a slow/noncuring condition. Field test is required and user must determine suitability. Paintable after 72 hours. Consult Technical Bulletin #31 for further information.

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

**Storage Life:** Dynatrol® II has a shelf life of one (1) year from the date of manufacture when stored in sealed containers at temperatures lower than 80°F (26°C).

**Precautions:** Contains diisocyanates. Contact with uncured sealant, with vapors generated during curing, or with dust formed from cured sealant may cause eye, skin, or respiratory tract irritation or allergic reaction. Do not breathe fumes, dusts, vapors or mist. Keep container closed. Use only with adequate ventilation or wear an appropriate NIOSH-approved respirator. Harmful if swallowed. Do not swallow or take internally. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Keep away from heat, sparks and flame. Repeated contact may, without symptoms, increase susceptibility of these effects. Refer to material Safety Data sheet (MSDS) 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](http://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 prime with P-75 or P-150 primer and recaulk. If the bond has been affected, remove the sealant, clean and prepare the joint in accordance with 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 assistance call our Technical Service Department at 800-523-6688 or 215-723-6051.

### FILING SYSTEMS

#### CSI MasterFormat Designation

- 07 84 43 - Joint FIRESTOPPING
- 07 92 00 - Joint Sealants

