



# VANDEX PLUG

## RAPID-SETTING, CRYSTALLINE HYDRAULIC CEMENT

### DESCRIPTION

**VANDEX PLUG** is a rapid-setting hydraulic cement compound with crystalline properties used to instantly stop running water or seepage in masonry or concrete. VANDEX PLUG is ready to use and requires only the addition of water before plugging and sealing active leaks within a minute. Once VANDEX PLUG has set and stopped the flowing water, additional Vandex waterproofing treatments can be immediately applied over the top of it.

### PRIMARY APPLICATIONS

- Concrete pipe
- Swimming pools
- Foundations & basements
- Tunnels
- Dams & water reservoirs
- Manholes
- WTP & WWTP plants
- Culverts
- Spillways

### FEATURES/BENEFITS

- Initial set in 45 seconds
- Instantly stops running water or seepage leaks
- Positive or negative side application
- Can be applied underwater

### TECHNICAL INFORMATION

#### Typical Engineering Data

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

#### Material Properties at 75°F (24°C)

##### Test Method

##### Compressive Strength ASTM C109 psi (MPa)

|              |              |
|--------------|--------------|
| 1 hour.....  | 1,000 (6.9)  |
| 1 day.....   | 1,500 (10.3) |
| 28 days..... | 3,000 (20.7) |

##### Flexural Strength ASTM C348

|              |           |
|--------------|-----------|
| 7 days.....  | 300 (2.1) |
| 28 days..... | 350 (2.4) |

##### Expansion/Shrinkage ASTM C157

28 Day Length Change, 3" x 3" beams removed from molds @ 24 hours

|                           |        |
|---------------------------|--------|
| Moist Room (100% RH)..... | 0.10%  |
| Dry Room (50% RH).....    | -0.25% |

**Appearance:** VANDEX PLUG is a gray hydraulic cement compound.

### PACKAGING

VANDEX PLUG is packaged in 50 lb (22.7 kg) pails.

### SHELF LIFE

1 year in original, unopened container

### COVERAGE/YIELD

1 lb (0.45 kg) of VANDEX PLUG yields approximately 17 in<sup>3</sup> (171 cm<sup>3</sup>) of repair material.

### DIRECTIONS FOR USE

**Surface Preparation:** Concrete surfaces must be structurally sound, free of loose or deteriorated concrete and free of dust, dirt, paint, efflorescence, oil and all other contaminants. Mechanically abrade the surface to achieve a surface profile equal to CSP >3 in accordance with ICRI Guideline 310.2. Properly clean profiled area.

**Mixing:** Pour potable water into a clean mixing container and gradually add VANDEX PLUG. Use approximately 1 quart of water to 8 to 9 lbs (3.8 to 4.3 kg/L) of material. Mix rapidly with a trowel to the consistency of stiff putty with no slump for no more than 20 seconds. VANDEX PLUG will flash set in 45 seconds. Properly mixed, VANDEX PLUG can be hand formed into a ball.

**Application:** Saturate, surface-dry (SSD) areas for repair with potable water immediately before application of VANDEX PLUG.

**General Repairs:** Force VANDEX PLUG into the crack or hole by hand or with a trowel. Rapidly fill to the full depth of the opening. **Patching Active Leaks:** Start at the top of the crack or hole, and force the VANDEX PLUG to the full depth of the prepared area. Apply direct pressure to the new patch until the VANDEX PLUG has taken a firm set. Mix fresh material, and continue patching toward the area of the greatest pressure. When extreme water pressure is encountered, physically hold the mixed VANDEX PLUG with a hand against the leak and apply continuous pressure until the VANDEX PLUG has set, and the water has stopped running. Do not use a twisting motion. **Floor-Wall Patching:** Follow above methods for the specific conditions encountered. Use a rounded tool to force the VANDEX PLUG into the joint, and construct a 45° transitional cove between the floor and wall at the same time. **Expansion/Contraction Cracks:** Do not use VANDEX PLUG to treat dynamic cracks. Consult the technical data sheets for the DURAL AQUA LINE of chemical/urethane grouts.

## CLEAN-UP

Clean tools and mixing equipment with water immediately after use.

## PRECAUTIONS/LIMITATIONS

- Do not apply VANDEX PLUG to frozen or frost filled surfaces.
- Do not twist VANDEX PLUG into the hole while plugging running water leaks.
- In warm weather, mix VANDEX PLUG with ice water. In cold weather, mix VANDEX PLUG with mildly warm water.
- Do not use in dynamic cracks or expansion joints. Use a chemical grout from the DURAL AQUA line.
- In all cases, consult the Safety Data Sheet before use.

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