



PATCH'N PLUG

03010 | PATCHING & RESURFACING

Concrete Waterproofing

Description

XYPEX PATCH'N PLUG is a specially designed, fast-setting, non-shrink, high-bond-strength, hydraulic cement compound for concrete patching and repair. Patch'n Plug stops flowing water in seconds and is used to seal cracks, tie holes, and other defects in concrete. The high performance characteristics of Patch'n Plug are enhanced by Xypex's unique crystalline waterproofing technology.

Recommended for:

- Stopping an active flow of water through cracks
- Repair of concrete substrates before the application of Xypex coating materials

Advantages

- Single component (simply add water)
- Fast setting: two to three minutes at 70°F (21°C)
- Excellent structural strength
- As durable as the masonry and concrete to which it is applied
- Non-metallic (won't rust or deteriorate)
- Non-toxic

Packaging

Xypex Patch'n Plug is available in 20 lb. (9.1 kg) pails and 60 lb. (27.2 kg) pails.

Storage

Xypex products must be stored dry at a minimum temperature of 45°F (7°C). Shelf life is one year when stored under proper conditions.

Coverage

One 60 lb. (27.2 kg) pail of Xypex Patch'n Plug will produce 0.54 cubic feet (0.0154 cu. metres) of mortar.

Test Data

| Physical Property | Test Method | Typical Result | |
|-----------------------|--------------|----------------|------|
| | | psi | MPa |
| Compressive Strength | ASTM C109 | | |
| @ 24 hours | | 2100 | 14.3 |
| @ 7 days | | 3100 | 21.3 |
| @ 28 days | | 4500 | 31.0 |
| Setting Time | ASTM C266 | min. | sec. |
| Initial Set | | 3 | 50 |
| Final Set | | 9 | 10 |
| Tensile Bond Pull-Off | CSA A23.2-6B | psi | MPa |
| | | 120 | 0.8 |

NOTE: Samples prepared with 1 part water to 3.25 parts dry powder by volume (1 part water to 4 parts dry powder by mass). Setting time was determined using Gilmore needles.

Plugging Instructions

1. **PREPARATION** Rout out crack or hole by chiseling or chipping to a minimum depth of one inch (25 mm). Form a square or dovetail shaped space (do not use a "V" cut). Flush away all loose materials and dirt from the cavity with water and a stiff brush.

2. **MIXING** Add 1 part water to 3.5 parts Patch'n Plug by volume and mix to the consistency of a stiff putty. Do not mix more than can be used in 3 minutes. For best results, water temperature should be approximately 60°F - 70°F (15°C - 20°C).

3. **PLUGGING** Form plug with gloved hand. Place plug into cavity pressing firmly until plug is hard. When sealing cracks, begin at the highest point and work down.

NOTE: Where there is a high volume of water flow due to extreme hydrostatic pressure, a bleeder hose may be necessary to relieve the water pressure while sealing the repair area. (See procedures on reverse side.)

Follow These Steps:

- a. With a concrete chisel and hammer (or chipping gun), cut open a cavity at the point of greatest water flow.
- b. Place a stiff section of hose or pipe into the cavity and secure in place with Patch'n Plug to force water through the hose. This relieves the pressure so that the area can be patched. Allow a minimum of 24 hours for hardening.
- c. Remove bleeder hose and plug remaining hole. If necessary, reduce water flow by inserting steel wool or wooden plug in the remaining hole before patching.

Patching Instructions

1. **SURFACE PREPARATION** Rout out faulty concrete until sound substrate is reached. Remove all loose materials from area and saturate with clean water. Allow water to be absorbed into the concrete, then remove excess water.

2. **MIXING** For fast repairs to concrete or masonry, add water to Patch'n Plug powder (1.5 parts water to 4 parts powder by volume). Mix to a workable mortar consistency and trowel on as required. For large repairs, mix 1 part Patch'n Plug with 2 parts mason sand or small aggregate (3/8 in. or 10 mm minus crushed stone). Maximum ratio is 40 lb. (18.2 kg) stone to one 60 lb. pail (27.2 kg) of Patch'n Plug.

Abnormal Temperatures

During above normal ambient temperatures, mixing water should not exceed 90°F (32°C) and Xypex Patch'n Plug material should not exceed 70°F (21°C). Below normal ambient temperatures will retard the setting time of Patch'n Plug. In this situation, Xypex materials should be stored at normal temperatures (see Storage) and mixing water should be heated to increase setting speed.

Technical Services

For more instructions, alternative application methods, or information concerning the compatibility of the Xypex treatment with other products or technologies, contact the Technical Services Department of Xypex Chemical Corporation or your local Xypex representative.

Safe Handling Information

Xypex is alkaline. As a cementitious powder or mixture, Xypex may cause significant skin and eye irritation. Directions for treating these problems are clearly detailed on all Xypex pails and packaging. The Manufacturer also

maintains comprehensive and up-to-date Material Safety Data Sheets on all its products. Each sheet contains health and safety information for the protection of workers and customers. The Manufacturer recommends you contact Xypex Chemical Corporation or your local Xypex representative to obtain copies of Material Safety Data Sheets prior to product storage or use.

Warranty

The Manufacturer warrants that the products manufactured by it shall be free from material defects and will be consistent with its normal high quality. Should any of the products be proven defective, the liability to the Manufacturer shall be limited to replacement of the product ex factory. The Manufacturer makes no warranty as to merchantability or fitness for a particular purpose and this warranty is in lieu of all other warranties expressed or implied. The user shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith.

