



## PATCH'N PLUG

### 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 water-proofing 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 21°C (water temperature will also affect set time)
- 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 4 kg, 10 kg and 20 kg buckets.

### STORAGE

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

### COVERAGE

One 20 kg bucket of Xypex Patch'n Plug will produce 0.015 cu. metres of mortar.

### TEST DATA

PHYSICAL PROPERTY	TEST METHOD	TYPICAL RESULT
<b>Compressive Strength</b>	<b>ASTM C109</b>	<b>MPa</b>
at 24 hours		14.3
at 7 days		21.3
at 28 days		31.0
<b>Setting Time</b>	<b>ASTM C266</b>	<b>minutes seconds</b>
Initial Set		3 50
Final Set		9 10
<b>Tensile Bond Pull-Off</b>	<b>CSA A23.2-6B</b>	<b>MPa</b>
		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.

### POTABLE WATER EXPOSURE

AS/NZS 4020 "Products For Use In Contact With Drinking Water", Australian Water Quality Centre, Adelaide, South Australia

Exposure testing of potable water in contact with Xypex-treated samples indicated no harmful effects.

### PLUGGING INSTRUCTIONS

**1. PREPARATION** Rout out crack or hole by chiseling or chipping to a minimum depth of 25 mm. Form a square or dovetail shaped rout (do not use a "V" shaped rout). 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 15°C - 20°C.

**Note:** When using Xycrylic Admix for increased bonding and compressive strength, blend Xycrylic with water, generally at a ratio in the range of one part Xycrylic to 5 - 10 parts water. Then mix 1 part liquid with 3.5 parts Patch'n Plug by volume.



3. **PLUGGING** Mix as above and form plug with gloved hand to desired shape. Allow to harden for at least 30 minutes. Place plug into rout and compress with hammer and block. 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. 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.

### **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 (10 mm minus crushed stone). Maximum ratio is 13.5 kg stone to one 20 kg bucket of Patch'n Plug. Where increased bonding is required, use Xycrylic Admix (or suitable bonding agent) as directed.

### **ABNORMAL TEMPERATURES**

Set time is affected by temperature. When ambient temperature exceeds 30°C, it is recommended that the mixing water be chilled so that the as-mixed temperature of Xypex Patch'n Plug does not exceed 21°C. When ambient temperature is lower than 15°C, it is recommended that the mixing water be warmed.

### **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 Department of Xypex Australia 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 buckets 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 your employees and customers. Contact Xypex Australia or your local Xypex representative to obtain copies of Material Safety Data Sheets prior to product storage or use.

### **WARRANTY**

Concrete Waterproofing Manufacturing Pty Ltd (trading as Xypex Australia) (the "Manufacturer") warrants that the products manufactured by it shall be free from material defects and of a consistent quality. Should any of the products be proven defective, the liability of the Manufacturer shall be limited to replacement of the product ex-factory. The Manufacturer gives no warranty as to fitness of the products for any particular purpose. The user shall: determine the suitability of the product for its intended use; comply with the directions for use and safe handling information available from Xypex; where necessary, engage an experienced Xypex applicator; and assume all risks and liabilities in connection with the use of this product.