



# MiraPatch WP

## Product Technical Data Sheet

**MiraPatch WP** is a single component, fast setting, Portland cement-based, hydraulic repair mortar and water plug for stopping mild seepage and active leaks under pressure through cracks and holes in concrete and masonry. Shrinkage compensated for controlled expansion and dimensional stability.

### WHERE TO USE

- Stop water seepage and active leaks.
- Grout for anchors and other mechanical connections.
- Quick repair for minor defects and voids in concrete.
- Precast concrete pipe repairs.
- Interior and exterior in full immersion service conditions.
- Horizontal, vertical and overhead surfaces.
- Water & wastewater plants and sewers.
- Foundations, basements, tunnels and sumps.
- Pools, fountains and other water features.

### ADVANTAGES

- Fast-setting, rapid strength gain.
- Shrinkage-compensated for controlled expansion.
- Single component formulation – just mix with water.
- Does not contain chloride, gypsum or metallic materials.
- Excellent adhesion to concrete and masonry.
- Easily molded and applied into leaking cracks and voids.
- Apply subsequent coatings in 20 to 30 minutes.

### THEORETICAL COVERAGE RATES

Crack Dimension	Coverage
.75" x .75" x 12"	118.5 LF
1.0" x 1.0" x 12"	66.6 LF

Theoretical yield per 50 lb. pail: .46 cu. ft. (800 cu. in.)

Actual consumption rates are dependent on many factors including, but not limited to, substrate texture and porosity, variations in applied thickness, and allowance for waste.

### PACKAGING and COLORS

50-pound pail - Available in gray only.

### MIX RATIO

Potable Water (1 Qt.) to MiraPatch WP powder (8 lbs.)  
(Mix ratio may vary slightly to achieve desired consistency)

### SHELF LIFE AND STORAGE

One year from the date of manufacture as long as packaging remains unopened and material is stored in a protected environment free from moisture, excessive heat, freezing temperatures, and direct sunlight.

### TYPICAL PHYSICAL PROPERTIES @ 75°F (24°C)

#### Compressive Strength ASTM C109

1 Hour.....	1,320 psi
1 Day.....	2,025 psi
7 Days.....	4,120 psi

#### Tensile Strength ASTM C307

7 Days.....	320 psi
28 Days.....	380 psi

Initial Set ASTM C266.....	90-120 seconds
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### OVERVIEW OF INSTALLATION STEPS

• **Surface Preparation** – All surfaces must be clean, sound and free from bond inhibiting substances including, but not limited to, grease, oil and any other contaminants or loosely bonded materials that may interfere with adhesion. For proper surface profile, follow ICRI Technical Guideline No. 310.2R-2013 for detailed surface profile requirements. A minimum width and depth of ¾" is required. Do not prepare cracks or voids in a way that will form a V-shaped repair edge. Whenever possible, undercut perimeter edges to create an ideal "dovetail" shaped repair. If that cannot be achieved, saw-cut repair perimeter to form a squared edge. Surface profile of a CSP-3 or higher is required depending on overall substrate conditions and concrete repair requirements. In the presence of inactive seepage or leaks, concrete and other porous or absorptive substrates require a thorough **saturation** condition at the time of application.

• **Mixing - MiraPatch WP** must be mixed with potable water to a homogenous and uniform consistency in a clean mixing vessel typically using a margin or similar type trowel. Only mix an amount of material that can be reasonably applied within 1 to 2 minutes. When mixing always add the powder component gradually into clean potable water. Do not attempt to modify **MiraPatch WP** powder with aggregates or additives of any kind. At a ratio 8 pounds of powder to 1 quart of water, rapidly and thoroughly mix the material for a maximum of 30 seconds. When properly mixed, **MiraPatch WP** can be hand-molded into any shape. Do not re-temper mixed material under any circumstances. Once mixed, place into the repair site within 2 minutes maximum. When leaks are active place and hold material in compression until initial set is reached.

• **Application – General Repairs:** Once mixed and material begins to stiffen, apply **MiraPatch WP** quickly at a minimum depth of ¾" with a margin trowel or gloved hand. Apply only when the substrate is in a thoroughly **saturated** condition. After placement, immediately dampen or mist freshly placed material with water, and maintain this damp condition until reaching final set.

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### OVERVIEW OF INSTALLATION STEPS (continued)

- **Application – Active Leaks:** Always start at the top, along edges and points furthest away from where water pressure is greatest. Slowly apply **MiraPatch WP** and work towards the source of the leak. When material is pressed into place, keep it under compression until it has firmly reached initial set. Once the main source of water pressure is encountered, mix fresh material and hold in hand until it begins to warm. Immediately force **MiraPatch WP** into the void and maintain constant hand pressure until material reaches firm set (about 3 to 5 minutes), and the leak has stopped. Do not turn or twist the material when pressing or holding into place. After several minutes, carefully shave the material with a trowel edge so the new patch is flush and level with the surrounding concrete surface.

### FOR BEST RESULTS

- Always install a test area or mock up for owner approval prior to proceeding with the installation.
- Verify that the most current versions of product technical data sheets (PTDS), material safety data sheets (MSDS), and installation guidelines (IG) are being utilized for project submittals and application reference.
- Protect materials at all times from excessive heat and cold, and pre-condition packaged material and mixing water, as required in adverse weather conditions.
- The proper application of this product is the sole responsibility of the end user. Job site visits by Miracote representatives are only for the purpose of making recommendations. Supervision and quality control are the sole responsibility of the user.
- Measure surface and ambient temperatures to ensure that material is only applied when temperatures are 45° F (7° C) and rising during placement and time of application.
- Never apply to frozen or frost-laden surfaces.

### LIMITATIONS

- Minimum depth of application is ¾”.
- Mechanical surface preparation methods may require additional testing to verify substrate tensile strength in accordance with ICRI Guideline No. 210.3R-2013 (Guide for Using In-Situ Tensile Pull-off Tests to Evaluate Bond of Concrete Surface Materials).
- Extension with coarse aggregates or other additives may alter the physical properties and performance of **MiraPatch WP** as published.
- Not intended for use in dynamic (moving) cracks, control joints or expansion joints.
- **MiraPatch WP** is not designed for use as a rendering mortar or surface-applied coating.
- As with all cement based materials, avoid direct contact with aluminum to prevent an adverse chemical reaction. Refer to MiraPrime AL for an appropriate primer.

### LIMITED WARRANTY

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CAUTION: ALWAYS KEEP OUT OF THE REACH OF CHILDREN.



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MIR.062  
MIRAPATCH WP  
8-28-2014