



ChemMasters®

SpeedPatch™ XL

Fast Setting, High Early Strength
Concrete Repair Mortar

SPECIALTY CONSTRUCTION PRODUCTS

P R O D U C T D A T A

DESCRIPTION

ChemMasters' **SpeedPatch XL** is a cementitious mortar for repairs of holes, voids, and cracks in concrete and masonry surfaces. This proprietary blend of unique cements and admixtures produces a light color concrete mortar with accelerated set and high early strength. **SpeedPatch XL** is formulated without added gypsum for enhanced freeze/thaw durability and extended resistance to severe weathering and underground environments.

USES

- Repairs above or below grade, interior or exterior, horizontal, vertical, or overhead
- Precast panels, steps, columns and beams, concrete pipe
- Repairs construction faults in formed walls, snap-tie or spreader holes, cracks, honeycombs
- Curbs, walkways, handrails, cornices, lintels, sills

ADVANTAGES

- Eliminates forms for many vertical and overhead applications
- Superior freeze/thaw durability
- May be shaved or molded to the contours of surrounding surface
- Light color concrete blends well with many existing substrates
- Minimizes downtime on restoration projects
- Unlike gypsum based products, set time is not slowed as the product ages or slowed at lower ambient temperatures

SpeedPatch XL
Packaged in poly lined bags / Part Number

50 lb (22.7kg)	56/ pallet - shrink wrapped	F2000.5
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TECHNICAL DATA

Yield per 50 lb (22.7 kg) bag

Neat	0.45 ft ³	0.013 m ³
60% extension with 30 lb pea gravel	0.60ft ³	0.017m ³

Set Times ASTM C191 / Vicat Method @ 72°F (22°C)

Set	Minutes
Initial	18 to 25
Final (Nominal)	~30
Remains Shavable	15 to 30
Accepts Foot Traffic	60

Compressive Strength ASTM C109

Days	psi	MPa
1	3,800	26.2
7	5,000	34.5
28	6,000	41.4

Bond Strength ASTM C882 Modified

Days	psi	MPa
1	1,600	11.0
7	2,000	13.8

Compressive Modulus of Elasticity ASTM C469

Days	psi	MPa
28	3.5 x 10 ⁶	24.1 x 10 ³

Shrinkage & Expansion ASTM C157

Days @ 50% R.H.	% shrinkage	% expansion
28	0.08	-
Days @ 100 % R.H.	-	0.04

Freeze/Thaw NYS DOT Method 502-3P

Cycles	% loss
25	0.9

Expansion ASTM C1090/ CRD C 621

Days	%
28	0.0



ChemMasters®

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DIRECTIONS

Surface Preparation: Surface to be repaired must be sound and free of all oil, grease, old asphalt, form release agents, efflorescence, and curing or sealing compounds. Remove all loose and broken concrete. For optimum results, square cut area to be repaired. Minimum depth is 0.5 in (1.25 cm). Enlarge width and depth of holes and cracks to 0.5 in (1.25 cm). Do not V cut. Roughen or abrade substrate to ensure adequate bonding.

Remove all signs of rust or oxidation from exposed reinforcing steel. Chip out concrete behind or under rebar to a depth of 0.75 in (1.9 cm). Coat clean metal with **Duraguard 100** epoxy to prevent further oxidation and deterioration.

Immediately before placement of **SpeedPatch XL**, remove any remaining dust or dirt with vacuum or oil free compressed air. Saturate surface with clean, potable water, remove standing water or puddles.

Mixing: **SpeedPatch XL** sets rapidly. Mix only what can be placed within 8 minutes of adding water. Mix small quantities in a clean pail by adding water to the **SpeedPatch XL** powder in the container. When mixing a full bag, use a mortar mixer with rubber tipped blades. One bag of **SpeedPatch XL** requires 3.5 qt (3.3L) of water.

Placement: Compact mortar firmly into repair area filling all voids and air pockets. Pay particular attention to spaces beneath exposed reinforcing steel. Slightly overfill the area being patched.

For repairs over 2 in (5 cm) deep, apply in 1 to 2 in (2.5 to 5.0 cm) lifts. The top surface of each lift must have a 1/8 to 1/4 in (0.32 to 0.64 cm) raked profile. Apply next layer within 15 to 20 minutes.

When design depth is obtained, trowel, float or broom final placement to match surrounding surface texture. **SpeedPatch XL** reaches initial set in a nominal 18 to 24 minutes then can be shaved with a trowel or sharp metal edge. Always shave **SpeedPatch XL** from the middle of the repaired area toward the bonding edge. **SpeedPatch XL** remains shavable for 15 to 30 minutes after mixing, depending on environmental factors such as temperature and humidity.

Curing: Large repaired areas should be cured with **Safe-Cure & Seal 309**, **Spray-Cure & Seal 25** or **Spray-Cure & Seal 25A** depending on the VOC regulations in your area. Consult ChemMasters' Technical Service Department.

SpeedPatch XL generates substantial heat when used in large quantities and gains strength rapidly. Light foot traffic may be allowed in approximately 1 hour.

Special Applications: Temperatures below 40°F (4°C): Remove frost or ice and warm substrate surface to a minimum 40°F (4°C). Follow the guidelines listed in **ACI 306 for Cold Weather Concreting**. During 50 to 60°F (10 to 15.6°C) keep **SpeedPatch XL** bags warm and use lukewarm mixing water to speed set. Never use water above 180°F (82°C).

Above Normal Temperatures: Temperatures exceeding 95°F (32°C), cool surface to be repaired with cool, clean, potable water, remove any standing water before placement. Keep **SpeedPatch XL** bags in cool place and use cold mixing water. Mix small batches that can be used quickly.

Bonding: When undercutting or squaring the edges of the repair area is not possible or when application must be made in hot or dry conditions, use **Cretelox** as the mixing liquid for a slurry bond coat. Do not allow bond coat to dry before application of the mortar. Use 1 part of **Cretelox** to 2 parts of water as the mixing liquid. Refer to **Cretelox** Product Data Sheet available at www.chemmasters.net.

CLEANUP

Before mortar hardens, clean tools and equipment with water.

LIMITATIONS

- **SpeedPatch XL** hardens in a nominal 18 to 24 minutes. Prepare only enough for immediate use
- **SpeedPatch XL** is not suitable as a resurfacing mortar for large, deep horizontal repairs. Consult ChemMasters' Technical Service Staff for recommendations on specific projects.
- Do not add any admixtures or sand
- Do not re-temper
- Do not apply to frozen or frosted surfaces
- Substrate temperature must be warmed to a minimum 40°F (4°C).

STORAGE

Store unopened bags in cool dry area on pallets. Shelf life is one year from date of manufacture when properly stored.

PRECAUTIONS

DANGER: Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure if inhaled.

Keep out of reach of children.

All label precautions and the Safety Data Sheet must be fully understood before using this product.

This Product is Formulated and Labeled for Industrial and Commercial Use Only

FOR BEST RESULTS AND SAFEST USAGE, USER IS SPECIFICALLY DIRECTED TO CONSULT THE CURRENT MATERIAL SAFETY DATA SHEET AND PACKAGE LABEL FOR THIS PRODUCT

We warrant our products to meet our published specifications and to be free from defects in materials and workmanship to the acceptable quality levels defined in these specifications. If acceptable quality levels are not specified, the acceptable quality levels will be those normally supplied by us for the product. We make no guarantee of the results to be obtained from the use of our products. The determination as to the adaptability of any of our products to the specific needs of the Buyer is solely Buyer's prerogative and responsibility. We are glad to offer suggestions on the use of our products. Nevertheless, there are no warranties given except such expresses warranties offered in connection with the sale of a particular product. Our liability shall be limited to replacement of, or refund of an amount not to exceed the purchase price attributed to, the goods as to which such claim is made. Our selection of one of these alternatives shall be Buyer's exclusive remedy. IN NO CASE SHALL WE BE LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGES, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES, CO-CONDITIONS AND REPRESENTATIONS, EITHER EXPRESSED OR IMPLIED, WHETHER ARISING UNDER ANY STATUTE, COMMON LAW, USAGE OR TRADE, COURSE OF DEALING OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.