



ChemMasters®

SpeedPatch™

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** 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** is formulated without added gypsum for enhanced 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
- 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 Packaged in poly lined bags / Part Number

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

Yield per 50 lb (22.7 kg) bag

Neat	0.42 ft ³	0.012 m ³
60% extension with 30 lb pea gravel	0.60ft ³	0.017m ³

TECHNICAL DATA

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

Set	Minutes
Initial	9 to 12
Final	11 to 14
Remains Shavable	15 to 40
Accepts Foot Traffic	60

Compressive Strength ASTM C109

Days	psi	MPa
1	2,800	19
7	4,750	33
28	6,000	41

Bond Strength ASTM C882 Modified

Days	psi	MPa
1	1,200	8
7	1,800	12

Flexural Strength ASTM C 38

Days	psi	MPa
28	975	6.7

Shrinkage & Expansion ASTM C157

Days @ 50% R.H.	% shrinkage	% expansion
28	0.08	-
Days @ 100 % R.H.	-	0.07

Scaling Resistance ASTM C672

Cycles	% loss
25	0

Tensile Strength ASTM C109

Days	psi	MPa
7	350	2.4
28	400	2.8



ChemMasters®

An American Owned & Operated Company
300 EDWARDS STREET; MADISON, OHIO 44057-3112
(440) 428-2105; FAX (440) 428-7091; ORDER LINE (800) 486-7866

January 2012

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 (1.25cm). Enlarge width and depth of holes and cracks to 0.5 in (1.25cm). 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 **Dura-guard 100** epoxy to prevent further oxidation and deterioration.

Immediately before placement of **SpeedPatch**, 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** sets rapidly. Mix only what can be placed within 5 minutes of adding water. Mix small quantities in a clean pail by adding water to the **SpeedPatch** powder in the container. When mixing a full bag, use a mortar mixer with rubber tipped blades. One bag of **SpeedPatch** requires 4.25 to 4.5 qt (4.2 to 4.3L) of water. For patches < 2" (5cm) add up to 30 lbs (13kg) of clean 3/8 in (0.95cm), SSD pea gravel or chipped stone per bag to extend the mix and prevent thermal cracking. The mixing sequence is 1) start mixer, 2) add water, 3) add rock or pea gravel if extending the mix, 4) add **SpeedPatch**, 5) mix for no more than 60 seconds until a stiff, lump free, putty like consistency is achieved.

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 0.64cm) 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** reaches initial set in 9 to 12 minutes then can be shaved with a trowel or sharp metal edge. Always shave **SpeedPatch** from the middle of the repaired area toward the bonding edge. **SpeedPatch** remains shavable for 15 to 40 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.

SpeedPatch 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** 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** 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** hardens in 11 to 14 minutes. Prepare only enough for immediate use
- **SpeedPatch** 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.

Cautions

May cause eye and respiratory tract irritation. Over exposure may cause skin irritation. Do not take internally.

Keep out of reach of children.

All label precautions and the SDS 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.