



ChemMasters®

SPECIALTY CONSTRUCTION PRODUCTS

ChemSpeed™ 75

Very Rapid Setting Concrete Repair Mortar with Migrating Corrosion Inhibitor Suitable for Horizontal and Vertical/Overhead Form & Pour

P R O D U C T D A T A

DESCRIPTION

ChemSpeed 75 is a single component, very rapid setting high performance structural repair mortar with added migrating corrosion inhibitor. This state of the art formula produces high, early strength at a wide range of temperatures with very low permeability. Areas repaired with **ChemSpeed 75** can be returned to rubber wheeled traffic within 2 hours depending on temperature. **ChemSpeed 75** can be extended up to 60% with silica gravel deep placements.

USES

- Structural repairs to heavy traffic substrates including concrete decks, bridges, parking garages and roadways.
- Fast setting repairs to high load concrete such as loading docks and industrial floors.
- Form and pour repairs to vertical columns and overhead beams.
- Repair adjacent construction and expansion joints.

ADVANTAGES

- Initial set in 13 to 19 minutes at 72°F (22°C).
- Repairs from 0.50 inch (1.3 cm) to full depth.
- Extremely versatile - use for horizontal repairs or as a form and pour mortar to repair vertical columns and overhead beams.
- Non-shrink with exceptional bond strength.
- High early strength gaining 3000 psi (21 MPa) in 2 hours at 72°F (22°C).
- May be placed down to 20°F (-7°C) if ACI 306 cold weather concreting standards are followed.
- Accepts rubber wheeled traffic over road surfaces or industrial facilities in 2 hours.
- Resists freeze-thaw cycles and deicing chemicals.
- May be extended for economical placement at depths greater than 1.5 inch (3.8 cm).
- Contains migrating corrosion inhibitor for superior protection of structural rebar.
- May be coated in as little as 4 hours

Packaging Product Number

50 lb (22.7 kg) bag	56 per pallet	F2035.50
3000 lb (1361 kg) super sack	1 per pallet	F2035.50

Estimating Guide

Yield per bag	0.42 ft ³ (0.012 m ³)
With 60% extension	0.60 ft ³ (0.017 m ³)

DIRECTIONS

Surface Preparation: If using **ChemSpeed 75** as replacement concrete, area to be repaired must be free of all dust, dirt, loose concrete, oil, grease, old asphalt, curing and sealing compounds, form release agents, efflorescence, or other contaminants that might interfere with adequate bond. Square cut perimeter of holes to a minimum depth of one inch (2.5 cm), undercutting to sound concrete when possible. Exposed reinforcing steel (NACE 3 Standard SSPC SP6) must be cleaned to a bright metal removing all rust or signs of oxidation. Chip out concrete behind or under rebar to a depth of 3/4" (1.9 cm). Coat any exposed steel with **Polyweld EPX^{CI}** or other corrosion inhibiting bonding agent as specified and allow to dry. Immediately prior to placement of **ChemSpeed 75** remove any remaining dust or dirt with vacuum or oil free compressed air. Saturate the prepared area with clean, potable water to the point of rejection. Remove any puddles or standing water immediately before placing mortar so that concrete is in a Saturated Surface Dry (SSD) condition. If using **ChemSpeed 75** to build a new area, follow all normal surface preparation procedures for concrete placement including compacting the substrate, forming the area, addressing drainage issues, etc. Apply form release agent to forms and allow to dry.



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Mixing: Condition the dry mortar and clean potable mix water to 65° to 75°F (18° to 24°C). Use 2.75 to 3.25 quarts of clean potable water per 50 lbs of **ChemSpeed 75**.

Do not add additional water or re-temper after initial mixing procedure. When mixing one bag use a variable speed drill with a jiffler paddle. For multiple bags or deeper pours use a mortar mixer. Refer to Estimating Guide for water requirements and yield. For deeper pours add up to 30 lbs. of clean stone to the mix. Add **ChemSpeed 75** to the mixing vessel and continue mixing for approximately 3 minutes to achieve a lump free consistency. Do not over mix.

APPLICATION: Scrub a mortar bond coat into the repair area being sure to fill all voids and pores. Do not allow bond coat to dry before placement of mortar. Poor substrate conditions may require the use of a chemical bonding agent. Compact mortar firmly into repair area filling all voids and air pockets paying special attention to spaces beneath any reinforcing steel. Vibrators are recommended for deeper pours or where reinforcing steel is used. Finish the same as ready-mix concrete with floats, trowels, or brooms.

CURING: ChemSpeed 75 continues to gain strength as long as it is damp. Apply a curing compound that meets ASTM C309 or ASTM C1315 such as **Polyseal**, **Polyseal A**, or **Polyseal WB** as soon as all bleed water has dissipated and application will not mar the surface. Call ChemMasters' Technical Service Department for recommendations regarding other curing methods. Light foot traffic may be allowed in approximately 24 hours.

Extreme Temperature Application: Temperatures above 80°F (26.7°C) - Cool the substrate with cool clean potable water. Prior to mixing keep material in cool, dry area, and use cold water for mixing. Temperatures below 50°F (10°C) - Keep material warm and use lukewarm water to speed set time.

LIMITATIONS

- Do not apply to frozen or frosted surfaces. Warm substrate to a minimum of 40°F (4°C) prior to application
- Do not apply if ambient or substrate temperatures are below 20°F (-7°C).

STORAGE

Store between 40° and 90°F (4° and 32°C) in unopened bags on pallets in a dry area. Shelf life of properly stored material is one year from date of manufacture.

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.

Precautionary Statements: Do not breathe dust/fume/gas/mist/vapors/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

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

**Keep out of the reach of children.
For professional use only.**

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 PRODUCT & SAFETY DATA SHEETS 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.

ChemSpeed 75

TECHNICAL DATA

Rapid Hardening, Cementitious Materials for Concrete Repair

Test Formulation	
Material	ChemSpeed 75
Mixing Conditions	73°F @ 50% relative humidity
Water Addition Rate:	2.75 to 3.25 quarts per 50 lbs of ChemSpeed 75
Curing:	Air Cure, 50 % relative humidity @ 73°F
Where Extended:	50 lbs ChemSpeed 75 with 30 lbs 3/8" ssd pea gravel

Test Results (Plastic)	
ASTM C191 Set Time (Vicat)	Initial: 16 minutes Final: 25 minutes

Compressive Strength ASTM C109 Average of Three 2 inch (50 mm) Cubes		
Time	psi	MPa
1 hr	3,200	22
2 hrs	4,250	29
3 hrs	5,200	34
1 day	7,100	49
7 day	9,050	62
28 day	9,500	66

NYDOT Freeze/Thaw Resistance (Modified with 4% CaCL) 2" Cubes, Submerged	
25 cycles	0.0% Loss

ASTM C157 Length Change (%) Average of three 1 x 1 x 1 1/4 " specimens		
14 day	21 day	28 day
-0.00386	-0.00834	-0.01406
Length Change of Hardened Hydraulic Cement Mortar & Concrete		

ASTM C157 Expansion (%) Average of three 1 x 1 x 1 1/4 " specimens		
14 day	21 day	28 day
+0.1119	+0.1143	+0.1143
Length Change of Hardened Hydraulic Cement Mortar & Concrete		