



ChemMasters®

ChemSpeed™ 65

Very Rapid Setting Polymer
Modified Concrete
Repair Mortar

Quality • Innovation • Service

P R O D U C T D A T A

DESCRIPTION

ChemMasters' ChemSpeed 65 is a Portland cement based high strength, very rapid setting, polymer modified, structural concrete repair mortar that can be used over a wide temperature range and requires only water for mixing. **ChemSpeed 65** is suitable for horizontal or formed vertical applications and may be extended up to 60% with pea gravel for deep placements.

USES

- Filling structural holes subject to heavy traffic including concrete decks, bridges, and roadways
- Fast setting repairs to high load concrete such as loading docks and industrial floors
- Repairs: construction expansion joints, highway overlays, parking structures, ramps, concrete floors, truck docks, heavy industrial locations, formed vertical and horizontal patching

ADVANTAGES

- Easy to use - just mix with water
- Initial set in 25 to 30 minutes at 72°F (22°C)
- Repairs from 0.50 in (1.3cm) to full depth
- Non-shrink for exceptional bond strength
- High early strength gaining 2500 psi (17 MPa) in 1 hour at 72°F (22°C)
- Meets or exceeds many states specifications Standard Specification 705.21
- Meets or exceeds ASTM C928 R 3 standard specification for packaged, dry, rapid hardening, cementitious materials for concrete repairs
- May be placed at temperatures from to 40°F (4.4°C) to 85°F (29.4°C)
- Accepts light rubber wheeled traffic in one hour
- Resists freeze-thaw cycles and deicing chemicals
- May be extended for economical placement at depths greater than 1.5 in (4cm)

TECHNICAL DATA

Packaged / Part Number

50 lb (22.7 kg)	56 per pallet	F2050.50
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Freeze/Thaw Durability ASTM C 666

Procedure A, 300 cycles	>94%
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Set Times ASTM C191 / Vicat Method @ 72°F (22°C)

Initial	Final
25 minutes	30 minutes

Compressive Strength ASTM C109 Average of Three 2 inch (50 mm) Cubes

Time	psi	MPa
1 hr	2500	17
2 hrs	3500	24
1 day	5000	34
3 day	5500	38
7 day	5900	40
28 day	6500	45

Bond Strength-Slant Shear ASTM C882

Days	psi	MPa
7	2,650	18

Flexural Strength ASTM C78

Time	psi	MPa
4 hr	475	3.3
3 day	1000	7
28 day	1200	8

Shrinkage ASTM C157 Average

28 Day	50% relative humidity	-0.095%
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Expansion ASTM C157 Average

28 Day	100% relative humidity	0.033%
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Yield per 50 lb (22.7 kg) bag

Water	3.25 qt	3.07L
Neat	0.42 ft ³	0.012 m ³
60% Extension	0.60ft ³	0.017m ³



ChemMasters® Inc.

American Made Products—Family Owned Company

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DIRECTIONS

Surface Preparation:

- If using **ChemSpeed 65** as replacement concrete, repair area 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 1" (2.5 cm), undercutting to sound concrete when possible.
- Exposed reinforcing steel (NACE 3 Standard SSPC SP6) must be cleaned to 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 65** 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 ensuring concrete is Saturated Surface Dry (SSD) condition.
- 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.
- **Mixing:** Condition the dry mortar and clean potable mix water to 65° to 75°F (18° to 24°C). 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. For deeper pours add up to 30 lbs. of clean stone to the mix. Add **ChemSpeed 65** to the mixing vessel. Continue mixing for approximately 3 minutes to achieve a lump free consistency. Do not over mix. Add up to 1/2 pint of additional water per bag to adjust to the desired finishing consistency. Over watering causes excessive shrinkage and lower strengths.
- **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 using a chemical bonding agent. Compact mortar firmly into repair area filling all voids and air pockets paying special attention to spaces beneath reinforcing steel. Vibrators are recommended for deeper pours or where reinforce-

ing steel is used. Vibrators are recommended for deeper pours or where with floats, trowels, or brooms.

- **CURING: ChemSpeed 65** continues to gain strength as long as it is damp. Apply a curing compound that meets ASTM C309 or ASTM C1315 such as **Polyseal WB, Safe Cure & Seal 309 or Safe Cure & Seal 1200** 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 85°F (29.4°C)** - Cool the mixing water and bags to extend working time. Wet curing is required. Cover with wet burlap and polyethylene to regulate evaporation until final set is achieved. **Follow ACI 305 Moist Cure Procedure for Hot Weather Concreting Standards.**
- **Temperatures below 50°F (10°C):** Warm the material and water to 70°F (21°C) before placement. Warm the area to be patched to at least 50°F (10°C) until initial set. Then insulate using curing blankets to maintain a temperature above freezing for at least 3 days. **Follow ACI 306 Cold Weather Concreting Standards.**

LIMITATIONS

- Do not apply to frozen or frosted surfaces.
- Do not featheredge. The minimum depth is 0.5 in (1.3cm).

STORAGE

Store shrink wrapped bags in a cool dry location away from moisture and humidity. Shelf life of properly stored material is 12 months from the 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: Obtain special instruction before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/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.

**FOR PROFESSIONAL USE ONLY
KEEP OUT OF REACH OF CHILDREN**

THIS PRODUCT IS FOR COMMERCIAL USE ONLY – IT IS NOT A CONSUMER PRODUCT.

Before using this product read entirely this paragraph and the Manufacturer's Warranty and Limitations of Liability at Chem-Masters.net/Warranty.php (or by using the adjacent QR Code) incorporated herein (collectively the "Terms"). To reject any of the Terms buyer must return the unopened product container at once to the seller from which it was purchased. By opening or using this product buyer accepts without objection or modification all Terms. Subject to applicable law, **MANUFACTURER DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE**, and buyer agrees that in lieu of all other remedies in manufacturers sole discretion it will either replace defective product or refund the reasonable purchase price, and in no event may you recover from manufacturer any special, incidental or consequential damages even if it was aware of the possibility of such damages.

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