## TECHNICAL DATA

# **DUO PATCH**



Two-component polymer-modified concrete repair mortar with corrosion inhibitor

#### DESCRIPTION

DUO PATCH is a two-component, polymer modified concrete repair mortar with integral corrosion inhibitor for use in horizontal, form and pour and when mixed to a stiffer consistency, vertical and overhead applications. DUO PATCH offers superior durability in industrial warehouse, parking deck, and roadway applications subjected to heavy loads and abrasion.

# **FEATURES/BENEFITS**

- Contains integral corrosion inhibitor
- Suitable for repairs from featheredge to 2"
- Interior/Exterior overlayment applications
- Excellent durability and adhesion
- Excellent freeze-thaw durability
- Easy to trowel high slump consistency
- Dries to natural concrete gray color

### **APPLICATION**

Surface Preparation: The concrete must be sound and free of all foreign material, including oil, grease, dust, laitance or other surface contaminants. For maximum durability, saw cut the perimeter of the repair 1/8" deeper than the depth of the repair, creating a notched, reinforced edge. Mechanically abrade the surface by an engineered approved method in accordance with ICRI 310.2 Guideline to a minimum CSP 5. All concrete surfaces to be repaired must be in a saturated-surface-damp (SSD) condition with no standing water on the surface.

**Priming/Scrub Coat:** Thoroughly clean all exposed steel reinforcing of rust and coat with **SpecPrep SB**.

Prepared concrete must be SSD and primed with a spray or brush coat of SpecPrep SB and the repair mortar applied wet on wet or up to the recommended open time (see SpecPrep SB technical data sheet).

As an alternative, apply a scrub coat of the properly mixed repair mortar by scrubbing a thin layer into the predampened substrate with a stiff brush. Place the repair mortar immediately before the bond coat dries.

Mixing: Mix 7.0–7.5 pints (depending on desired consistency) of DUO PATCH Admix per 50 pound bag of material. Mix with a low speed drill. Add recommended amount of DUO PATCH Admix into the container, followed by slowly adding the DUO PATCH powder. Mix 2-3 minutes. Mix only what can be applied within the setting period. Do not exceed 7 pints of DUO ADMIX for applications over 1/2". DUO PATCH can be applied in applications from feather edge to 1" in a lift for light traffic applications.

<u>Deep Applications</u>: Extending DUOPATCH with 3/8" pea stone in large, deep applications over 3/4" will create a concrete topping very similar in thermal properties to the concrete itself.

# **APPLICATION** (con't)

Large repair applications over 1", DUO PATCH should be extended with clean, SSD, 3/8" aggregate up to 60% by weight (30lbs) and mix an additional 2 minutes. This extension will add approx .18 cu-ft to the unit yield and should be placed within 15-20 minutes.

**Placement:** Trowel, screed, or pour DUO PATCH firmly into the prepared area, ensuring intimate contact with the bonding surface. Finish DUO PATCH level with the surrounding concrete and allow to take an initial set. After the initial set, when DUO PATCH is surface hard, finish by hand troweling.

Finishing/Curing: Finish the repair material to the desired texture to best match the surrounding concrete. Do not add additional water to the surface during finishing. Lightly spray SpecChem SpecFilm as a finishing aid on this and any other polymer modified mortars to assist in finishing. DUO PATCH is self-curing under most conditions. In severe drying conditions, use an ASTM C309 compliant, water-based SpecChem curing compound.

### **TYPICAL TEST DATA**

Set Time at 70°F (ASTM C266)	
Initial Set	40 min
Final Set	50 min
Compressive Strength (ASTM C109)	
1 day	2500 psi
7 days	4000 psi
28 days	6000 psi
Bond Strength (ASTM C882 modified)	
7 days	1800 psi
Length Change (ASTM C157)	
Wet Cure @ 28 days	+.04%
Air Cure @ 28 days	02%
Flexural Strength (ASTM C348)	
7 days	650 psi
28 days	1300 psi
Yield	
Yield Per Bag	.42 cu-ft



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#### **PACKAGING**

50 lb bag of Duo Patch + 1 gal. jug of DUO PATCH Admix

60 lb pail unit containing 50 lb bag of DUO PATCH + 1 gal. jug of DUO PATCH Admix

### **CLEAN UP**

Tools and equipment may be cleaned with water before DUO PATCH hardens.

#### SHELF LIFE

Shelf life of unopened bags stored in a dry facility is 12 months. Excessive temperature differential and/or high humidity can shorten the shelf life expectancy. Store in a cool, dry area away from direct sunlight. **Do not allow the DUO PATCH Admix to freeze!** 

## LIMITATIONS/PRECAUTIONS

Although DUO PATCH can be feather-edged, maximum durability in heavy or severe applications is achieved @ a minimum thickness of 1/2". Do not retemper after initial mixing. Do not add other cements or additives to this product. DUO PATCH is a fast setting product, so mixing equipment should be cleaned with water as soon as possible.

Do not exceed 7 pints of DUO ADMIX for applications over 1/4"

Do not allow repairs to freeze until the material has reached a minimum of 1000 psi compressive strength. In adverse temperatures, follow ACI recommendations for hot/cold weather concreting practices.

Minimum surface and ambient temperature of 45°F and rising is required at the time of application.

For optimum results, condition material to between 65 °F and 85°F.

**Caution:** Contains Portland cement and sand. Cement will cause irritation. Avoid contact. A dust respirator, safety goggles, and rubber gloves are recommended. Avoid prolonged contact with clothing. In case of contact with eyes, immediately flush with water for at least 15 minutes. Get prompt medical attention. Do not wear contact lenses when working with this product. DO NOT take internally. Keep out of reach of children.

Avoid hazards by following all precautions found in the Material Safety Data Sheet (MSDS), product labels, and technical literature. Please read this information prior to using the product.

#### WARRANTY

# NOTICE-READ CAREFULLY CONDITIONS OF SALE

SPECCHEM offers this product for sale subject to and limited by the warranty which may only be varied by written agreement of a duly authorized corporate officer of SPECCHEM. No other representative of or for SPECCHEM is authorized to grant any warranty or to waive limitation of liability set forth below.

#### WARRANTY LIMITATION

SPECCHEM warrants this product to be free of manufacturing defects. If the product when purchased was defective and was within use period indicated on container or carton, when used, SPECCHEM will replace the defective product with new product without charge to the purchaser. SPECCHEM makes no other warranty, either expressed or implied, concerning this product. There is no warranty of merchantability. NO CLAIM OF ANY KIND SHALL BE GREATER THAN THE PURCHASE PRICE OF THE PRODUCT IN RESPECT OF WHICH DAMAGES ARE CLAIMED.

#### INHERENT RISK

Purchaser assumes all risk associated with the use or application of the product.



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