



#### 1. PRODUCT NAME

ProSpec® BlendCrete®

### 2. MANUFACTURER

**TEC Specialty Products LLC** 1105 South Frontenac Street Aurora, IL 60504-6451 U.S.A. 1-800-832-9002 Customer Service 1-800-832-9023 Technical Support prospec.com

#### 3. PRODUCT DESCRIPTION

ProSpec® BlendCrete® is a fast-setting, one component, polymer-modified, calcium aluminate cement-based concrete and masonry patching compound designed for horizontal, vertical and overhead repair applications.

### **FEATURES & BENEFITS**

- Interior/exterior
- Horizontal, vertical and overhead repair applications
- Apply to 1/4" 2" (6 mm 51 mm)\*
- Fast setting, low slump repair mortar that can be troweled, shaped and shaved after taking an initial set
- Easy shaping and molding
- One component incorporating a water activated polymer system
- Integrated corrosion inhibitor
- Tenacious bond to substrates
- Normal set time of approximately 30 minutes
- Available in 15 minute set time formula
- \* Use TEC® Patch Additive (used at full strength) for thicknesses of 1/4" (6 mm) to 1/2" (13 mm).

# **USES**

- Used interior or exterior, above or below grade, on horizontal, vertical and overhead
- Suited for patching distressed surfaces including precast products, concrete pipe, curbs, sidewalks, bridges, panels and walls
- Used to fill honeycombs, formed high rise holes, spalls or irregularities due to misaligned forms or unconsolidated concrete

Note: To repair voids in concrete due to improper consolidation, use RubCrete or BlendCrete®. See respective product Technical Data Sheet for more information.

#### SAFFTY

READ THE SAFETY DATA SHEET (SDS) BEFORE USING THIS PRODUCT. SDS Sheets are available on our website prospec.com or contact Medical Emergency Phone Number (24 Hours): 1-888-853-1758, Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300 or contact ProSpec® Technical Services at 800-832-9023 (7:00AM to 5:00PM M-F, Central US Time).

# **CAUTIONS**

Read complete cautionary information printed on product container prior to use. For medical emergency information, call 1-888-853-1758. This Product Data Sheet has been prepared in good faith on the basis of information available at the time of publication. It is intended to provide users with information about and guidelines for the proper use and application of the covered ProSpec® brand product(s) under normal environmental and working conditions. Because each project is different, TEC Specialty Products LLC cannot be responsible for the consequences of variations in such conditions, or for unforeseen con-

# LEED® Eligibility1

- Regional Materials (MR-c5)
- Low-Emitting Materials (IEQ-c4.1)

#### PRODUCT ENHANCEMENTS



# Rapid Cure Technology (RCT®)

RCT® Rapid Cure Technology - Improves the strength, controls shrinkage and prevents efflorescence of our products without sacrificing workability or working time.

#### **PACKAGING**

50 lb (22.7 kg) bag and pails

#### **COLORS**

#0 Dark grav #2 Medium gray #3 Light gray Also available in white

#### **SHELF LIFE**

12 months from the date of manufacture when stored in the original, unopened container, away from moisture, under cool, dry conditions and out of direct sunlight.

# 4. INSTALLATION

### **Preparation**

All materials should be stored at 40°F (4°C) to 80°F (27°C) 24 hours prior to installation. Surface must be clean, hard, and free from dirt, loose particles, waxes, plastics, curing compounds, grease, paint, efflorescence, and any foreign materials that will inhibit adhesion.

- Adjoining surfaces must be sound, clean, free of loose or damaged concrete, dust, dirt and other contaminants that will interfere with bond. Completely expose and clean all reinforcing steel, ensuring a minimum clearance of 3/4" (19 mm) behind reinforcing steel.
- Perform reinforcing steel preparation in accordance with ICRI Technical Guidelines No. 03730. For best results patch area edges should be saw cut to a depth of 1/2" (13 mm). Abrade concrete to obtain a rough surface promoting adhesion.
- The area should be saturated surface dry (SSD) with no standing water on the surface. The use of a vigorously scrubbed application of a thinly mixed BlendCrete® bond coat is recommended. This should be applied to all surfaces coming into contact with the patch.
- Do not allow bond coat to dry prior to the placement of the BlendCrete®.

Note: It is the responsibility of the installer/applicator to ensure the suitability of the product for its intended use.

ICRI Guide No. 03732: Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings and Polymer Overlays

# **JOB MOCKUPS**

The manufacturer requires that when its ProSpec® products are used in any application or as part of any system that includes other manufacturers' products, the contractor and/or design professional shall test all the system components collectively for compatibility, performance and long-term intended use in accordance with pertinent and accepted industry standards prior to any construction. Written documentation of the tests performed shall be satisfactory to the design professional and contractor. Test results must include the means and methods of application, products used, project-specific conditions being addressed, and standardized tests performed for each proposed system or variation.

#### MIXING

- BlendCrete® requires 4 5 qt (3.8 4.7 L) of water per 50 lb (22.7 kg) of powder. Mix only the amount of material that can be placed in 15 minutes.
- Pour the required amount of potable water into a clean mixing container,

then add the measured amount of BlendCrete® while continuing to mix and blend thoroughly for 1 - 2 minutes to a lump free, putty like consistency.

- Small amounts of BlendCrete® can be mixed using a trowel or a 1/2" drill (400 - 600 rpm) and paddle.
- For applications of 1/4" 1/2" (6 12 mm), mix with 4 5 qt (3.8 4.7 L) of TEC® Patch Additive (used at full strength).

#### **EXTENDED MIX**

- To fill areas deeper than 2" (51 mm), add 15 lb (6.8 kg) of clean saturated surface dry 3/8" (10 mm) pea gravel to 50 lb (22.7 kg) of BlendCrete®. First mix the BlendCrete® as outlined, then add the pea gravel and mix for 60 seconds.
- Total mixing time is not to exceed 2 3 minutes.
- Clean out the mixing container thoroughly after each batch to avoid getting hardened mortar into the next batch.

### **APPLICATION**

- The minimum ambient and surface temperatures should be 40°F (4°C) at time of application. Hot weather and conditions above 80°F (27°C) will reduce working time and accelerate set, while cold temperatures below 60°F (16°C) will have a retarding effect.
- Immediately apply the fresh mortar into the entire surface, forcing BlendCrete® firmly into the previously prepared area insuring full contact with all bonding surfaces. Slightly overfill the area.
- After initial set, using a trowel, shave BlendCrete® to the desired final profile, shaving the patch from the center towards the bond edge at the existing surfaces. A wet spray may be used for final shaping.
- In deeper areas additional lifts can be made after the original patch has reached initial set. Score and roughen the original lift layer to improve bond between applications.
- BlendCrete® can be placed in lifts up to 2" (51 mm) on vertical and overhead applications by holding the mortar in place until initial set has occurred.

### **CURING**

- Cure in accordance with American Concrete Institute procedure number 308. Protect patch from high temperature, high wind, low humidity and direct sun causing rapid drying, by covering with wet burlap or plastic for up to 24 hours.
- A water-based curing compound can also be used. Do not apply to frozen or frost covered areas.

# REFER TO:

ACI 305: Standard on Hot Weather Concreting ACI 306: Standard on Cold Weather Concreting ACI 308: Standard Practice for Curing Concrete

# **CLEANING**

Use water to clean all tools immediately after use.

# **LIMITATIONS**

Do not overwater, or retemper mix.

#### **COVERAGE**

One 50 lb (22.7 kg) bag yields approximately 0.48 ft $^3$  (0.01 m $^3$ ) or approximately 23 ft $^2$  at 1/4" thickness (2.1 m $^2$  at 6 mm).

With the addition of 15 lb (6.8 kg) of 3/8" (10 mm) pea gravel yield is approximately 0.60 ft<sup>3</sup> (0.02 m<sup>3</sup>).

# 5. AVAILABILITY

To locate ProSpec® products in your area, please contact:

Phone: 800-832-9002 Website: prospec.com

#### 6. WARRANTY

For warranty details, see your sales associate or prospec.com

# 7. MAINTENANCE

Not applicable

#### **8. TECHNICAL SERVICES**

Technical Assistance Information is available by calling the Technical Support Hotline.

Toll Free: 800-832-9023

#### **Technical and Safety Literature**

To acquire technical and safety literature, please visit our website at prospec.com.

#### 9. FILING SYSTEM

Division 3

<sup>1</sup> ProSpec® products can contribute to LEED® credits within the Material Resource, (Recycled Content & Regional Materials) and Indoor Environmental Quality (Low Emitting Materials).

### **10. TECHNICAL DATA**

Working time 15 minutes @ 70°F (21°C)	
Set Time ASTM C191 @ 70°F (21°C)	
Initial set approximately 20 minutes	
Final set approximately 30 minutes	

Compressive Strength ASTM C928	
3 hours	3,000 psi (20.7 MPa)
1 day	4,000 psi (27.6 MPa)
7 days	5,000 psi (34.5 MPa)
28 days	5,500 psi (37.9 MPa)

l	Freeze/Thaw Resistance ASTM C666 Method "B"		
	After 300 cycles	1% loss due to slight scaling; no spalling	

Average Scaling Resistance ASTM C672-98	
Number of cycles - 25	Rating 0
	Condition of Surface - No scaling visible

Shear Bond Strength ASTM C882		
1 day	1,035 psi (7.1 MPa)	
7 days	1,650 psi (11.4 MPa)	

Flexural Strength ASTM C348	
1 day	1,142 psi (7.9 MPa)
28 day	1,180 psi (8.1 MPa)

Tested at 5 quarts of water results obtained under controlled laboratory conditions. Reasonable variations can occur due to atmospheric and job site conditions. Conforms to modified ASTM C928.

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