BUILDING TRUST

PRODUCT DATA SHEET

Sikacrete® 211 SCC Plus

ONE-COMPONENT, CEMENTITIOUS, POLYMER-MODIFIED, SELF CONSOLIDATING CONCRETE MIX WITH AN INTEGRAL MIGRATING CORROSION INHIBITOR

PRODUCT DESCRIPTION

Sikacrete® 211 SCC Plus is a one-component, self consolidating concrete containing factory blended coarse aggregate. This self consolidating concrete bag is silica fume and polymer modified and also contains a migrating corrosion inhibitor.

USES

- Full depth repairs
- On grade, above and below grade on concrete
- On horizontal surfaces
- Vertical and overhead surfaces when formed and pumped or poured
- As a structural repair material for parking facilities, industrial plants, walkways, bridges, tunnels, dams, and balconies
- Filler for voids and cavities

CHARACTERISTICS / ADVANTAGES

- Self Consolidating Concrete - Excellent placement characteristics
- Polymer-modified
- Integral penetrating corrosion inhibitor
- Silica fume enhanced
- Prepackaged coarse aggregate. Eliminates the need to extend material in the field. Eliminates the risk of reactive aggregate
- Can be pumped or poured into forms and gets excellent consolidation without vibrating

PRODUCT INFORMATION

Packaging	65 lb. (29.5 kg) bag
Appearance / Color	Gray powder
Shelf Life	12 months from date of production if stored properly in original, unopened and undamaged sealed packaging
Storage Conditions	Store dry at 40–95 °F (4–35 °C) Protect from moisture. If damp, discard material

TECHNICAL INFORMATION

Compressive Strength	1 day	2,000 psi (13.8 MPa)	(ASTM C-39) 73 °F (23 °C) 50 % R.H.
	7 days	5,500 psi (37.9 MPa)	
	28 days	6,500 psi (44.8 MPa)	
Flexural Strength	1 day	500 psi (3.4 MPa)	(ASTM C-293) 73 °F (23 °C) 50 % R.H.
	7 days	750 psi (5.2 MPa)	
	28 days	1,000 psi (6.9 MPa)	
Splitting Tensile Strength	7 days	750 psi (5.2 MPa)	(ASTM C-496) 73 °F (23 °C) 50 % R.H.
	28 days	1,000 psi (6.9 MPa)	
Tensile Adhesion Strength	1 day	250 psi (1.7 MPa)	(ASTM C-1583) 73 °F (23 °C) 50 % R.H.
	7 days	300 psi (2.1 MPa)	
Slant Shear Strength	1 day	1,000 psi (6.9 MPa)	(ASTM C-882 modified)*
	7 days	1,500 psi (10.3 MPa)	
	28 days	2,500 psi (17.2 MPa)	
	* Mortar scrubbed into substrate at 73 °F (23 °C) and 50 % R.H.		
Shrinkage	28 days	<0.05 %	(ASTM C-157 modified)
Freeze thaw resistance	300 cycles	> 99 %	(ASTM C-666)
Freeze Thaw De-Icing Salt Resistance	50 cycles	2	(ASTM C-672)
Sulfate Resistance	0.006*		(ASTM C-1012)
	*Length change after 6 months at 73 °F (23 °C) and 50 % R.H.		
Chloride Ion Diffusion Resistance	28 days	< 650 Coloumbs	(ASTM C-1202 AASHTO T-277)

APPLICATION INFORMATION

Mixing Ratio	5.5-6 pints (2.6-2.8 L)	
Coverage	0.50 ft^3 (0.01 m^3) per bag (Coverage figures do not include allowance for surface profile and porosity or material waste)	
Layer Thickness	**Min.**	**Max.**
	1" (25 mm)	8" (203 mm)
	▪ Thicker appliations have been done successfully. ▪ Please consult Sika® Technical Service.	
Consistency	Initial spread	25-30" (6.4-7.6 cm) (ASTM C-1611)
	Spread at 30 min.	> 15" (3.9 cm)
Product Temperature	65–75 °F (18–24 °C)	
Ambient Air Temperature	45–86 °F (7–30 °C)	
Substrate Temperature	45–86 °F (7–30 °C)	
Pot Life	~ 60 minutes As the temperature will affect the pot life, application temperature: ▪ Above 73 °F (23 °C) will reduce the pot life and slump ▪ Below 73 °F (23 °C) will extend the pot life and slump	

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Concrete

- Surface must be clean and sound. Remove all deteriorated concrete, dirt, oil, grease, and other bond-inhibiting materials from the area to be repaired.
- Be sure repair area is not less than 1" (25 mm) deep.
- Preparation work should be done by appropriate means. Obtain an exposed aggregate surface with a minimum surface profile of ± 1/8" (3 mm) (CSP-7-8) on clean, sound concrete.
- Substrate should be Saturated Surface Dry (SSD) with clean water prior to application. No standing water should remain during application.

Reinforcing Steel

- Steel reinforcement should be thoroughly prepared by mechanical cleaning to remove all traces of rust.
- Where corrosion has occurred, the steel should be high-pressure washed with clean water after mechanical cleaning.
- For priming and protection of reinforcing steel use Sika® Armatec® 110 EpoCem (consult PDS).

MIXING

- Start mixing with 5.5 pints (2.6 L) of water.
- An additional 0.5 pint (0.2 L) can be added if needed.
- Do not over water as excess water will cause segregation.
- Add Sikacrete® 211 SCC Plus while continuing to mix.
- Mechanically mix to a uniform consistency, for 3 minutes.with a low-speed drill (400–600 rpm) and paddle or in appropriate-size mortar mixer or concrete mixer.

APPLICATION

- Pre-wet surface to SSD.
- Ensure good intimate contact with the substrate is achieved. To accomplish this, material should be scrubbed into the substrate or other suitable means should be employed such as vibration of the material or pumping under pressure.
- Vibrate form while pouring or pumping.
- Pump with a variable pressure pump.
- Continue pumping until a 3 to 5 psi increase in normal line pressure is evident then STOP pumping.
- Form should not deflect.
- Vent to be capped when steady flow is evident, and forms stripped when appropriate.

CURING TREATMENT

- As per ACI recommendations for Portland cement concrete, curing is required.
- Moist cure with wet burlap and polyethylene, a fine mist of water or a water based* compatible curing compound.
- Curing compounds adversely affect the adhesion of following layers of mortar, leveling mortar or protective coatings.
- Moist curing should commence immediately after finishing.
- Protect newly applied material from direct sunlight, wind, rain and frost.

* Pretesting of curing compound is recommended.

LIMITATIONS

- As with all cement based materials, avoid contact with aluminum to prevent adverse chemical reaction and possible product failure. Insulate potential areas of contact by coating aluminum bars, rails, posts, with an appropriate epoxy such as Sikadur® 32 Hi-Mod.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

LOCAL RESTRICTIONS

Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, product label and Safety Data Sheet which are available online at http://usa.sika.com/ or by calling Sika's Technical Service Department at 800.933.7452 nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instructions for each Sika product for each Sika product as set forth in the current Product Data Sheet, product label and Safety Data Sheet prior to product use.

ECOLOGY, HEALTH AND SAFETY

Keep container tightly closed. Keep out of reach of children. Not for internal consumption. For industrial use only. For professional use only. For further information and advice regarding transportation, handling, storage and disposal of chemical products, users should refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety related data. Read the current actual Safety Data Sheet before using the product. In case of emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

DIRECTIVE 2004/42/CE - LIMITATION OF EMISSIONS OF VOC

0 g/L	(EPA Method 24)

LEGAL NOTES

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