

MARCH 2015

OPERATIONS • MARKET DEVELOPMENT • PRACTICE

# Concrete<sup>®</sup>

PRODUCTS

CONCRETEPRODUCTS.COM

- Matrix-microfiber bonding, p. 14
- Super Air Meter adoption, p. 18
- Graniterock mix EPD, p. 17
- NRMCA Drivers of the Year, p. 36
- Weiler Concrete Mixers, p. 46
- GivenHansco mobile launch, p. 50
- GRT's returned-concrete kit, p. 52

<http://concrete.epubxp.com/i/475516-mar-2015>

## READY MIXED MARKET VIEW

A MINING MEDIA PUBLICATION

# Contents

MARCH 2015

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## COVER STORY, P. 42



PHOTOS: MSM (cover); Concrete Products (booth)

The EZExtenz telescoping mixer chute enjoys enthusiastic North American debut at World of Concrete 2015.

## SUPER AIR METER, P. 18



## DRIVERS OF THE YEAR, P. 32



## DEPARTMENTS

### 4 EDITORIAL

### 8 NEWS SCOPE

- Heritage business, TXI performance boost investor confidence in Martin Marietta
- Former Labor Secretary, Transportation Deputy Secretary joins Vulcan board
- Sand & gravel-tracking agency cites future supply concerns
- World of Concrete is back in big ways
- BASF macrofiber secures polymer-cementitious material bonding
- Super Air Meter gauges void spacing, freeze-thaw durability prospects
- Multifamily lender lowers interest rates for LEED-certified projects
- LEED certification strongest in Illinois; gaining in the South and Southwest
- NRMCA certifies five Graniterock plants' Environmental Product Declarations
- LCA, carbon deployment, resilience topics highlight concrete sustainability conference

### 19 BRIEFS

### 32 FEATURE

A salute to the NRMCA Ready Mixed Concrete Delivery Professional Driver of the Year, Eastern Concrete Materials' Ed Rieper, and runner-up, Concrete Supply's Henry Scarborough.

### 34 TECHNICAL TALK

Glow in the dark concrete, portland cement-limestone blends highlight 2015 Transportation Research Board meeting presentation themes.

### 46 INNOVATIONS

- Weiler Concrete Mixer debut
- Cemen Tech's next generation volumetric
- pH-optimizing carbon dioxide injectors
- GivenHansco's mobile app premier
- GRT's Re-Con Zero returned-concrete treatment, aggregate recycling kit

### 54 MARKETPLACE CLASSIFIEDS

### 56 FINAL FORM

SCC mix carries the day for shell-style, Decorative Concrete Council award-winning structure

## BASF macrofiber secures polymer-cementitious material bonding

Following up on two major 2014 product introductions—MasterLife CRA (Crack-Reducing Admixture) 007 at World of Concrete, MasterSphere FT (Freeze-Thaw) 300 at ConExpo-Con/Agg—BASF Admixture Systems returned to Las Vegas this year with another concrete breakthrough attributable to its parent company's vast well of chemistry.

World of Concrete 2015 brought MasterFiber MAC 2200 CB, a first-of-its-kind macrosynthetic fiber that chemically and mechanically bonds to concrete, providing enhanced post-crack flexural performance when compared to conventional macrosynthetic offerings. Against the latter, the new product's performance characteristics spell 25–30 percent lower dosage rates to achieve target shrinkage and temperature cracking control. Lower fiber volume equates to greater concrete workability and easier placement, improved dispersion and mix design optimization.

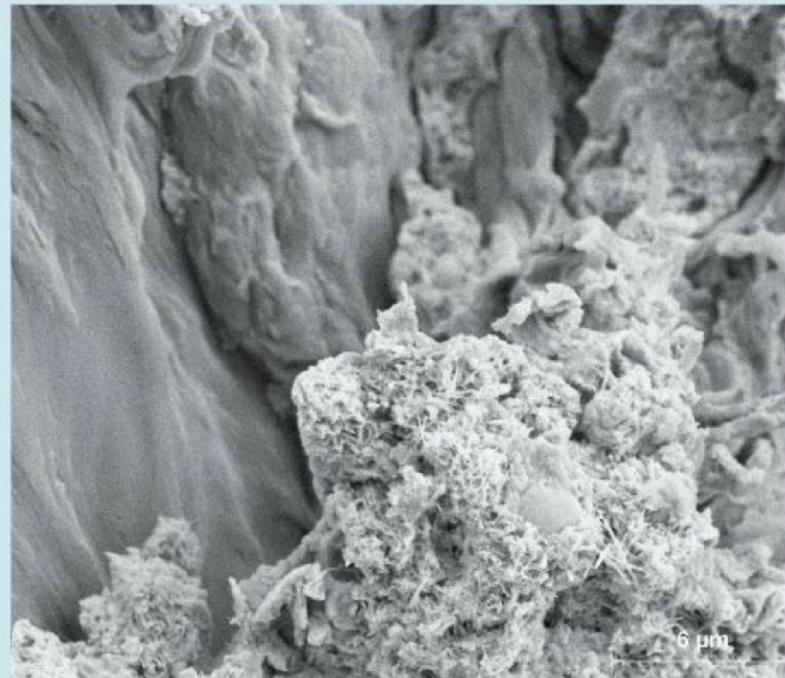
"Unlike a typical inert macrofiber, MasterFiber MAC 2200 CB creates a chemical bond with the concrete that allows the fiber to perform more effectively," says Product Manager Kirk DeCapite. "Through polymer resin technology and a highly engineered fiber architecture, [it] bonds to the cementitious matrices within the concrete to provide enhanced residual strength."

MasterFiber MAC 2200 CB was created to replace welded-wire reinforcement and No. 3 and No. 4 (10 mm and 13 mm) reinforcing bars typically used as temperature and shrinkage reinforcement. It suits cast-in-place structures, including slabs on grade, bridge decks and pavements, along with white topping and overlay applications, plus conventional or high slump precast concrete. MasterFiber MAC 2200 CB imparts tighter crack control; extends joint spacing; improves load transfer at contraction joints; and, justifies slab thickness reduction.

"More and more concrete professionals are using macrofibers in place of traditional secondary reinforcement due to their ability to provide consistent reinforcement throughout the concrete matrix," DeCapite notes. "We were able to leverage BASF's superior expertise in chemistry to create a truly unique and performance-enhancing macrofiber to make life easier for concrete producers and contractors."

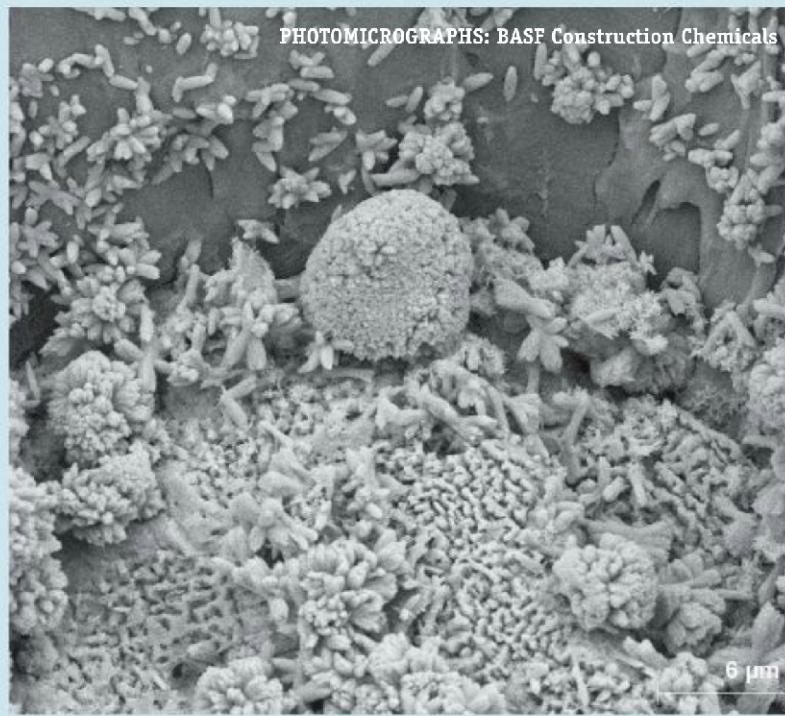
MasterFiber MAC 2200 CB was formally launched at the end of 2014, on the heels of Ohio, Pennsylvania and Iowa demonstration pours plus specification for an exterior slab in California. Another recent enhancement to the Admixture Systems macrofiber portfolio is an advanced packaging system that aligns the fibers to improve their dispersion in a concrete mixture compared to results from traditional loose fiber dosing. —  
[www.master-builders-solutions.bASF.us](http://www.master-builders-solutions.bASF.us)

### MAGNIFIED MATRICES



Viewed at 4,000x magnification, a typical polypropylene fiber's clean surface (left) demonstrates the lack of bond to cementitious matrix (center and right).

PHOTOMICROGRAPHS: BASF Construction Chemicals



Formations on the MasterFiber MAC 2200 CB product surface (upper portion) promote bonding to the cementitious matrix (lower portion).