



**Dow Corning** 2200 W. Salzburg Rd. PO Box 994 Auburn MI 48611

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# Dow and Dow Corning Launch New High-Performance Silicone Water Repellent, Present on Advances in FRC Protection at IIBCC 2016

Acrylic Emulsion Polymers and Silicone-based Hydrophobers Offer Multiple Options for Integral and Post-treatment Water Repellency

**FUZHOU, CHINA – November 7, 2016 –** Exhibiting here at IIBCC 2016 in booth H104, Dow Construction Chemicals and Dow Corning High Performance Building Solutions introduced today new Dow Corning<sup>®</sup> IE 6686 Water Repellent, a next-generation, silicone-based microencapsulation/ emulsion for fiberreinforced cement (FRC) admixtures that delivers excellent resistance to water uptake and efflorescence. The two Dow entities are also spotlighting pure acrylic emulsion polymers for FRC basecoats and topcoats that can be used together or as alternatives to silicone-based protection. Additionally, representatives from both organizations are delivering presentations on the latest developments in the advancement of acrylic and silicone-based solutions for protecting FRC siding, roofing and flooring.

Now that Dow Corning is wholly owned by Dow, the two construction-facing organizations have joined forces to give customers an expanded portfolio, extensive building science expertise, strong R&D capabilities and globally recognized brands. Their combined presence here marks the first time the two have ever exhibited together at an IIBCC show.

Representing both Dow and Dow Corning, Axel Giesecke, Dow Corning's global segment leader for Construction Chemicals & Infrastructure, is giving a presentation titled "Options for Silicon Based Hydrophobization of FRC Boards," that will provide an overview on the two organizations' combined product offerings and joint capabilities. Giesecke will speak on Tuesday, 8 Nov., from 4:00 to 5:45 pm. as part of IIBCC's Suppliers Day event.

Jean Paul Lecomte, Dow Corning's technical service leader for Construction Chemicals will then present a technical paper on Wednesday, 9 Nov. at the IIBCC Conference. Titled "Use of Silicone Resin Emulsion as Integral Water Repellent for Mortar and Fibre Reinforced Cement Boards (FRC)," Lecomte's presentation will start at 4:15 p.m. It will cover the advantages of using advanced, silicone-based water repellents as admixtures, an approach that protects the entire FRC component and enables on-site cutting without impacting hydrophobicity.

"Demand for FRC siding, panels, roofing and flooring, is strong and growing, particularly in Asia," said Giesecke. "Simultaneously the call for improved technologies to protect FRC components against damaging moisture uptake is also on the rise. As an integrated, customer-centric market leader, Dow and Dow Corning are now able to address these demands with an extremely deep and broad portfolio of both internal and post-treatment water repellency options that make it easier to create highly durable, safe and attractive commercial and residential structures." Dow and Dow Corning Launch New High-Performance Silicone Water Repellent, Present on Advances in FRC Protection at IIBCC 2016

## Silicone Hydrophober Technologies

Dow Corning is exhibiting a number of silicone-based hydrophober solutions that can minimize water absorption and efflorescence, provide longer-lasting aesthetics and enhance durability.

- New Dow Corning<sup>®</sup> IE 6686 Water Repellent, introduced here today, is an oil-in-water microencapsulation/emulsion of a silicone resin that contains 30 wt. percent of active material. Used as an admixture, it significantly reduces water uptake and efflorescence. The silicone resin is emulsified and microencapsulated in a silica-based shell, which protects it and facilitates mixing/dispersing in water. This new solution was developed specifically for retention in FRC boards that are formed using the Hatschek process.
- **Dow Corning® Z 6289 Resin** is an alkyl-functionalized, low-viscosity silicone resin used as an admixture.
- **Dow Corning® 520 Dilutable Water Repellent** is a silane/siloxane emulsion blend that is dilutable in water.
- **Dow Corning® IE-6683 Water Repellent**, a silane/siloxane emulsion blend, is dilutable in water to formulate a <200 g/l volatile organic compound (VOC) water repellent.
- Dow Corning<sup>®</sup> IE-6682 Emulsion is an impregnation sealer for masonry and cement surfaces.
- **Dow Corning® IE-6694 Water Repellent** is a 60 percent active, low-VOC, water-dilutable silicone emulsion for treatment of porous construction materials.

## **Acrylics for FRC Coatings**

In combination with or as an alternative to silicone-based protection, Dow Construction Chemicals offers various pure acrylic emulsion polymers for clear and pigmented basecoats and topcoats. Pure acrylics, a proven technology for use as FRC coatings, deliver excellent durability and resistance to efflorescence and alkali. Among the high-performance materials being showcased at the Dow/Dow Corning booth are acrylic emulsion polymers that offer a range of glass transition temperatures.

#### **About Dow Corning**

Dow Corning (dowcorning.com), a wholly owned subsidiary of The Dow Chemical Company, provides performance-enhancing solutions to serve the diverse needs of more than 25,000 customers worldwide. A global leader in silicones, silicon-based technology and innovation, Dow Corning offers more than 7,000 products and services via the company's Dow Corning<sup>®</sup> and XIAMETER<sup>®</sup> brands. More than half of Dow Corning's annual sales are outside the United States. Dow Corning's global operations adhere to the American Chemistry Council's Responsible Care<sup>®</sup> initiative, a stringent set of standards designed to advance the safe and secure management of chemical products and processes.

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#### About Dow

Dow (NYSE: DOW) combines the power of science and technology to passionately innovate what is essential to human progress. The Company is driving innovations that extract value from material, polymer, chemical and biological science to help address many of the world's most challenging problems such as the need for clean water, clean energy generation and conservation, and increasing agricultural productivity. Dow's integrated, market-driven, industry-leading portfolio of specialty chemical, advanced materials, agrosciences and plastics businesses delivers a broad range of technology-based products and solutions to customers in approximately 180 countries and in high-growth sectors such as packaging, electronics, water, coatings and agriculture. In 2015, Dow had annual sales of nearly \$49 billion and employed approximately 49,000 people worldwide. The Company's more than 6,000 product families are manufactured at 179 sites in 35 countries across the globe. On June 1, 2016, Dow became the 100 percent owner of Dow Corning Corporation's silicones business, a global company with sales of greater than \$4.5 billion in 2015, 25 manufacturing sites in 9 countries and approximately 10,000 employees worldwide. References to "Dow" or the "Company" mean The Dow Chemical Company and its consolidated subsidiaries unless otherwise expressly noted. More information about Dow can be found at www.dow.com.

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For further information contact: Melody Meng Dow Corning +86 3899 5752 Melody.meng@dowcorning.com

Amy Godfrey AH&M Marketing Communications +1 413 4482260, Ext. 370 agodfrey@ahminc.com



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### PHOTO: Fiber-reinforced Cement Board with Dow Corning® IE 6686 Water Repellent

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