

PRESS RELEASE

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Field and Lab Tests Confirm the Durability of Silicone Coatings for Outdoor Insulators

Munich, July 31, 2009 – The durability of POWERSIL® silicone coatings for outdoor insulators is not affected even by many years of continuous use. That is the result of WACKER's outdoor endurance tests and current lab studies. They show that even after years of outdoor exposure to the elements, POWERSIL® coatings retain their water-repellency and hence their beneficial electrical properties. These and other studies were presented to the public at WACKER's 2nd Insulation Materials Colloquium in Burghausen (Germany).

WACKER's POWERSIL® portfolio of insulation materials for the transmission and distribution sector includes silicone coatings for porcelain and glass insulators. When conventional insulators are coated with POWERSIL®, beneficial electrical properties are conferred on them thanks to the coating's water-repellent action (hydrophobicity).

To assess the long-term stability of such coatings, WACKER performs accelerated weathering tests as per ISO 4892. For over 3,000 hours, the coated test samples are irradiated with UV light and exposed to moisture. The state of the insulator coating is then determined by evaluating its water-repellent properties. The tests provide conclusive findings on the material's durability – data that

could otherwise only be obtained from field tests spanning several years.

WACKER studies now prove that test samples coated with POWERSIL® repel water even after 3,000 hours of extreme weathering in a simulator. "Our tests show that samples coated with POWERSIL® 567 retain their excellent hydrophobicity even after lengthy periods of artificial weathering," says Martin Grunwald, a silicones expert at WACKER, who explained the results during the colloquium.

Endurance tests carried out by WACKER in Sweden and Germany confirm these results. "Based on the tests we've been running in Sweden for the last 15 years, we can say that insulators coated with POWERSIL® function smoothly for many years without needing to be cleaned, even in regions with high air pollution," added Grunwald. Alongside its own field tests, WACKER regularly analyzes coated insulators used by several of its customers. Grunwald discussed applications in China, Spain and Germany. "The results are very positive and prove that POWERSIL® coatings exhibit superior durability."

Some 100 customers and scientists took part in the WACKER colloquium. Besides WACKER's own service engineers and researchers, renowned experts such as Ernst Gockenbach and Hossein Borsi (University of Hannover), Albert Claudi (University of Kassel), and Roland Bärsch and Ronny Paulick (University of Zittau/Görlitz) gave presentations on the latest developments and

research findings regarding the use of silicones as electrical insulation materials. The event is to take place again.



Porcelain insulators coated with POWERSIL®. Lab and endurance tests show that the hydrophobic properties of insulator coatings from WACKER SILICONES remain almost unaltered even after many years of weathering. (Photo: Wacker Chemie AG)



Experts from Germany and neighboring countries traveled to Burghausen to attend WACKER SILICONES' 2nd Insulation Materials Colloquium.
(Photo: Wacker Chemie AG)

Note:

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The company in brief:

WACKER is a globally active chemical company with some 15,900 employees and annual sales of around €4.3 billion (2008). WACKER has 27 production sites and over 100 sales offices worldwide.

WACKER SILICONES

Silicone fluids, emulsions, rubber and resins; silanes; pyrogenic silicas; thermoplastic silicone elastomers

WACKER POLYMERS

Polyvinyl acetate and vinyl acetate copolymers in the form of dispersible polymer powders, dispersions and solid resins used as binders for construction chemicals, coatings, adhesives, paints, plasters and nonwovens

WACKER FINE CHEMICALS

Fine chemicals, biologics and other biotech products such as cyclodextrins and cysteine

WACKER POLYSILICON

Polysilicon for the semiconductor and photovoltaics industries; solar wafers

Siltronic

Hyperpure silicon wafers and monocrystals for semiconductor devices