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PRESS RELEASE

Number 11

European Coatings Show 2023
WACKER Presents Innovative and Sustainable Solutions for the Construction and Coatings Industries

Munich, March 27, 2023 – At the first European Coatings Show since the Covid pandemic, WACKER will be presenting a wide range of product and application highlights. Novelties on stage for the first time are binders for high-temperature coatings and high solids, silicone additives for silicate interior wall paints, dispersible polymer powders for tile adhesives, polymer dispersions for waterproofing membranes, and a silicone resin binder for stone carpets. In Hall 1, the company will be presenting itself to trade show visitors twice: at Booth 1-206, where experts will provide information on construction, sealant and coating solutions, and at Booth 1-312, where the WACKER Academy Forum will invite visitors to attend technical presentations and live demos. The European Coatings Show starts tomorrow in Nuremberg, Germany, and ends on March 30, 2023.

WACKER has been promoting its ECS appearance on its website and social media channels for several weeks now. In posts and short videos, product developers, application engineers and marketing experts explained what the Group has to offer at Europe's largest paints, coatings and inks trade show this year. Starting tomorrow, experts from WACKER's business divisions WACKER SILICONES,

WACKER POLYMERS and WACKER BIOSOLUTIONS will be in Nuremberg to continue the live dialog with the visitors.

And there should be no difficulty in engaging in dialog, either. With over 300 square meters of booth space and a new trade show design, the company's booth is easy to find in Hall 1 (1-206). And that's not all: a few steps away from the booth, the WACKER will be addressing trade visitors once again. Chemists and technical service engineers will be on hand every day between 9:30 a.m. and 5:00 p.m. at the WACKER Academy Forum (Booth 1-312) to discuss the latest product and development trends in the construction, paints, coatings and sealants industries. Nearly 30 presentations are planned over the three days of the show, sustainability being a focus of most talks. On Tuesday, March 28, at 11:30 am, Peter Gigler, head of Corporate Sustainability at WACKER, will present the Group's sustainability goals and its "Race to Zero". Detailed information on the complete lecture program is available at www.wacker.com/ecs.

"At the last ECS, our forum was a real crowd puller. I'm sure this will be the case again this year," says Peter Summo, head of WACKER POLYMERS. Topics such as energy-efficient construction, waterproofing membranes or concrete recycling are on the WACKER POLYMERS agenda. "Up to 40 percent of the energy used for heating and air conditioning is due to uninsulated exterior walls of homes. Good building insulation can significantly reduce this energy consumption and the CO_2 emissions it causes," says Summo. "Thermal insulation, resource-saving construction, refurbishment and modernization are among the key topics we are addressing at ECS and for which we are also presenting new products and solutions."

WACKER's SILICONES division will also focus on sustainable solutions for the construction and coatings industries: resource-conserving silicone sealants (ELASTOSIL® eco), silicone resins for solvent-free high-temperature coatings or silicone additives for biocide-free interior wall paints are among the highlights displayed this year. "Sustainability is a key concern for us as a company," emphasizes Robert Gnann, head of the WACKER SILICONES division. "The ECS is an excellent platform to discuss innovative and sustainable solutions with existing customers and those who want to become a customer in the future. We are particularly looking forward to this dialogue."

Ten Product Innovations

WACKER is showcasing ten new products at this year's ECS. The range of topics is diverse once again: silicone resins for high-temperature coatings and silicone additives for silicate interior wall paints are among the highlights, as are dispersible polymer powders for tile adhesives and polymer dispersions for sealing slurries. Here are the product innovations in detail:

- **High-Temperature Resistant Coatings: Two New Silicone Resins for Water- and Solvent-based Systems**

SILRES® M 51 E is a functional methyl silicone resin finely dispersed as tiny droplets in an aqueous medium. Using this kind of formulation for application on metal substrates is novel. The properties of water-based paints in which SILRES® M 51 E is the sole binder are similar in quality to those of heat-resistant coatings containing solvent-based silicone resin binders. Aqueous paint formulations dry quickly and, after baking, possess exceptional chemical and mechanical strength.

Following thermal stress, such coatings show excellent color and gloss resistance.

SILRES® IC 900 was designed as a binder for solvent-based paints and coatings that need to withstand high temperatures. The product, which consists of an alkoxy-functionalized methyl phenyl silicone resin, is delivered as a pure, undiluted active ingredient. Its low viscosity also enables the development of high-solids coatings. The resin is characterized by a molecular structure which, when cross-linked, results in a close-meshed network that still exhibits a certain flexibility. That flexibility prevents cracks from forming in the cured coating layer, especially under conditions of thermal stress. It follows that SILRES® IC 900 makes it possible to produce coatings that can be applied in thick layers.

▸ High-Solids and UV-curing Coatings: Polymer Resin Binder Enhances Coating Properties

WACKER will also unveil a new polymer resin binder to formulate solvent-borne coatings, printing inks, high-solids, and UV-curing systems. Development of the product started with VINNOL® H 40/43, an existing polymer resin grade that is suitable for a wide range of solvents and UV monomers. In VINNOL® L-6868, the mixing ratio of vinyl chloride and vinyl acetate was modified. The outcome is a decisive improvement in solubility that renders VINNOL® L-6868 highly soluble in ketones as well as in esters, acrylic monomers, UV monomers and glycol esters. The combination of modified polymer composition and very low molecular weight has the effect of substantially lowering the viscosity of the polymer resin. The new binder can be used to formulate high-solids systems, i.e. those with high pigment

and binder contents. VINNOL® L-6868 is also suitable for reactive curing systems.

Due to its very low molecular weight, VINNOL® L-6868 represents the optimal solution for formulators addressing challenges relating to flow, intercoat adhesion, and flexibility in UV-curing systems. Applications for the new binder include printing inks, plastic coatings, wood coatings, paper and film coatings. VINNOL® L-6868 can also be used to formulate coatings for food-contact packaging.

At ECS, WACKER will also present a concept that opts for more sustainability, i.e. a reduction of greenhouse gas emissions when manufacturing VINNOL® polymer resins. Products that have been manufactured with renewable energy sources will be available as early as this summer. The concept will be presented at the WACKER Academy Forum (booth 1-312) on March 29, at 3:30 p.m.. Title: “VINNOL® resins for solvent based coatings and inks: a path towards a lower carbon footprint“.

- **SILRES® BS 338 – Silicone Additive for Waterborne Silicate Paints and Brush-on Plasters**

For wall coating manufacturers, a visit at WACKER’s ECS booth is rewarding, too. The Group will be showcasing a new silicone additive for formulating silicate paints and brush-on plasters for interiors. This product, which is available as an aqueous emulsion under the name SILRES® BS 338, facilitates processing of the coating materials, increases their storage stability and enhances the properties of the applied coating. Wall paints and brush-on plasters produced with the

silicone additive have the same breathability as before, but yield a hydrophobic, water-repellent finish.

The active ingredient in SILRES® BS 338 is a reactive polysiloxane. During setting, it forms a solid, durable bond with the surfaces of the filler and pigment particles in the coating materials. The resulting effects in the coating are permanent. Thanks to its low surface tension, which is a characteristic property of silicones, the new additive improves the wetting properties of the coating material and lowers its viscosity. These two effects ensure that the coating material flows well during application, making it much easier to achieve level, uniform and streak-free results than was previously possible with silicate paints and plasters.

- **VINNAPAS® 4419 E, 8819 E und 4449 E: Novel Dispersible Polymer Powders for Tile Adhesives and Dry-Mix Mortars**

WACKER will be presenting three new polymeric binders for formulating tile adhesives and mortars in exterior insulation and finish systems (EIFS): VINNAPAS® 4419 E, VINNAPAS® 8819 E and VINNAPAS® 4449 E. The new dispersible polymer powders are geared primarily toward improved workability and were developed with a particular focus on the users, i.e., on tilers and other skilled workers. For them, proper mortar consistency is key, both when mixing the dry-mix mortar with water and when subsequently applying the fresh mortar.

VINNAPAS® 4419 E, VINNAPAS® 8819 E and VINNAPAS® 4449 E have been modified in a way that lowers the viscosity of fresh mortar up to 20 percent. As a result, less physical exertion is required for

processing the mortar and applying it with a notched trowel. Realistic assessments carried out on test walls have demonstrated that this makes the work much easier. The new products also improve open time and correction time – in other words, the period in which the tiler can still make corrective adjustments before the adhesive sets and solidifies. That improvement is particularly notable in warmer regions with more sunlight, where tilers will now have more time to process fresh mortar, even at higher processing temperatures.

VINNAPAS® 4419 E und VINNAPAS® 8819 E were developed for tile adhesive formulations. VINNAPAS® 4449 E, on the other hand, is suitable for adhesive mortars used for exterior insulation and finish systems. The benefits of this product include its ability to form a particularly powerful bond within the layer system, balancing the forces that arise from temperature fluctuations and other influences. In addition to the improvements already mentioned, VINNAPAS® 4449 E also makes the mortar more resistant to abrasion and improves its flexural strength.

▸ VINNAPAS® 754 ED und VINNAPAS® 764 ED Improve Crack Bridging Properties of Waterproofing Membranes

One option for protecting balconies, bathtubs and other surfaces from water penetration is to apply cementitious waterproofing membranes. When these set, they form a self-contained, water-repellent film which is flexible enough to bridge the cracks in the subfloor that result when the building settles or when temperatures and other weather conditions fluctuate. Polymeric binders blended in during the manufacturing process provide the necessary flexibility and hydrophobicity.

WACKER is presenting two new polymer dispersions to achieve excellent processing properties and to bridge cracks, even at very low temperatures. VINNAPAS® 754 ED and VINNAPAS® 764 ED. are used as hydrophobic binders in two-part cements and help to bond the end product reliably and permanently, even on difficult substrates. Waterproofing membranes based on VINNAPAS® 764 ED meet class O2 requirements as defined in EN 14891, which establishes flexibility and crack-bridging properties for temperatures down to -20 degrees Celsius. Formulations using VINNAPAS® 754 ED remain sufficiently flexible and bridge cracks at -5 degrees Celsius, thus meeting the class O1 requirements specified in the standard. The viscosity of the product is also low, making two-part cementitious waterproofing membranes even easier to process.

VINNAPAS® 754 ED and VINNAPAS® 764 ED are ideally suited for formulating two-component waterproofing membranes for swimming pools, cellars and bathrooms, as well as water containers, canals, tunnels and more. Neither product contains any additional solvents, plasticizers or film formers. According to an assessment by the German Federal Institute for Risk Assessment (BfR), this makes them suitable for contact with drinking water.

▸ New Silicone Resin for Stone Carpet Applications

At the European Coatings Show, WACKER will present a alpha-silane-terminated binder for stone carpets. SILRES® BS 6920 can be used to produce formulations for fixing floor coverings consisting of stone granules and synthetic resins. WACKER's hybrid binder impregnates and protects natural floors. In addition, formulations

based on the binder are completely free of organic solvents. Recipes based on SILRES® BS 6920 are easy to process and cure quickly.

Visit WACKER in Nuremberg at the 2023 European Coatings Show, Hall 1, Booth 1-206.

At ECS 2023, WACKER will be presenting a novel silicone resin for heat-resistant, water-based coating formulations. Cross-cut tests show that the adhesive properties of SILRES® M 51 E are similar to those of high-temperature paints and coatings formulated with solvent-based silicone resin binders. (Photo: WACKER)

With the aid of the new VINNOL L-6868 polymer resin binder, printing inks can be formulated to adhere reliably to all kinds of plastics. WACKER will be unveiling the product in March at the European Coatings Show in Nuremberg. (Photo: WACKER)

At the European Coatings Show 2023, WACKER is launching SILRES® BS 338, a new silicone additive for interior silicate paints and brush-on plasters. (photo: WACKER).

Tile adhesives modified with WACKER's new VINNAPAS® 4419 E and VINNAPAS® 8819 E polymeric binders make it much easier to install large tiles precisely. The chemical group will be unveiling the products at the European Coatings Show in Nuremberg. (Photo: WACKER)

Crack-bridging test according to EN 14891: Waterproofing membranes formulated with VINNAPAS® 754 ED and VINNAPAS® 764 ED can compensate for cracks even at temperatures below freezing, thus reliably protecting the building from water penetration.
(Photo: WACKER)

The silicone resin SILRES® BS 6920 can be used to produce resin systems for fixing floor coverings made of stone granules. WACKER will be unveiling the product at the 2023 European Coatings Show in Nuremberg. (Photo: WACKER)

Please note:

These photos are available for download at:
http://www.wacker.com/pressreleases

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The company in brief:
WACKER is a globally active chemical company with some 15,700 employees and annual sales of around €8.21 billion (2022).
WACKER has a global network of 27 production sites, 26 technical competence centers and 51 sales offices.

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

WACKER POLYMERS
Polyvinyl acetates and vinyl acetate copolymers and terpolymers in the form of dispersible polymer powders, dispersions, solid resins and solutions

WACKER BIOSOLUTIONS
Biotech products such as cyclodextrins, cysteine and biologics, as well as fine chemicals and PVAc solid resins

WACKER POLYSILICON
Polysilicon for the semiconductor and photovoltaic industries