

PRESS RELEASE

Number 5

EUROPEAN COATINGS SHOW 2011: WACKER to Present Novel Composite Dispersions and Hybrid Liquid Membranes for Challenging Construction Applications

Munich, February 3, 2011 – Under the slogan “Our $\oplus$ in Expertise,” the Munich-based WACKER Group will be presenting, amongst others, innovative polymer and silicone technologies for the construction sector at the European Coatings Show (ECS) in Nuremberg, from March 29 to 31, 2011. The focus will be on applications involving facades, water proofing and long-term protection. WACKER is debuting its novel composite dispersions which optimally combine organic and inorganic components to confer long-lasting bright colors to facades. A further premiere is WACKER’s liquid membranes based on special alpha-silane-terminated hybrid polymers for sealing flat surfaces and waterproofing. New VINNAPAS® dispersible polymer powders with hydrophobic properties for exterior insulation and finish systems (EIFS) plus a versatile polymer dispersion for both indoor and outdoor use round out WACKER’s portfolio for construction applications.

A highlight of this year’s ECS is the presentation of novel composite dispersions from the successful VINNAPAS® product line. What’s special about this new development is its composition: The core of the dispersions is made up of inorganic silica particles (the basis of quartz and glass) only a few nanometers in size that are surrounded by organic polymer particles. If mineral particles are simply mixed into an organic dispersion, the particles can agglomerate during film

formation and subsequently develop an uneven, heterogeneous film. The organic shell of the new composite dispersion now prevents inorganic-particle agglomeration during the film-forming process. Thus, a homogeneous and stable film forms.

Combining organic and inorganic components imparts special properties to the new VINNAPAS® dispersions. The elastic, organic components have conventional binder properties, ensuring strong adhesion and cohesion, good mechanical properties and improved processability. This organic base can be formed by styrene-acrylate or vinyl acetate ethylene (VAE) copolymers, as well as by terpolymers with vinyl chloride. In contrast, the solid mineral components have outstanding barrier properties. They reduce dirt pick-up, ensure long-lasting color shades and lower the risk of algae or mold formation, thereby reducing the total number of facade renovation cycles.

Additionally, the composite dispersions feature improved scratch and abrasion resistance, high thermal stability, and optimal thermal conductivity and water-vapor permeability. Of particular note is their high flame-retardant effect and thus improved fire performance. The new VINNAPAS® composite dispersions are therefore ideally suited for challenging exterior applications, and expand WACKER's comprehensive portfolio for plasters and facade coatings.

Water-Tight, but Vapor-Permeable: GENIOSIL® W Sealing Membrane

At ECS 2011, WACKER will also present a new liquid sealant technology for the construction industry. The product, marketed under the GENIOSIL® W trademark, is based on special alpha-silane-terminated hybrid polymers which combine the benefits of polyurethane and silicones in a single product. With the aid of this

hybrid technology, WACKER has already successfully developed a new generation of binders for solvent-free parquet adhesives and highly elastic industrial adhesives.

GENIOSIL® W also makes use of this alpha-silane technology: The silane-curing product forms a stable, tack-free sealing membrane on surfaces. The membrane is waterproof, yet vapor-permeable. For this reason, moisture can still escape from the substrate after sealing.

GENIOSIL® W is especially suitable for permanent sealing of large surfaces such as flat roofs, balconies, patios and basement walls. GENIOSIL® W 90, for example, was developed for vertical surfaces. For horizontal surfaces, the self-leveling grades GENIOSIL® W 180 and GENIOSIL® W 180 plus are suitable. The ready-to-use products can be applied with either a roller or a brush or by the airless spray method. It adheres to concrete, screed, glass, ceramics and wood, as well as many types of metal. GENIOSIL® W is UV and chemically resistant, virtually odorless, and – in contrast to many conventional liquid sealing systems – is not classified as a dangerous chemical under the German hazardous substances legislation.

Versatile All-rounder: VINNAPAS® 828 ND

Another debut for the construction sector at the ECS is WACKER's VINNAPAS® 828 ND. This is a dispersion based on vinyl chloride, ethylene and vinyl acetate, and stabilized with polyvinyl alcohol (PVOH). What makes it special is its claim to be an "all-rounder" for the full spectrum of interior and exterior applications. Furthermore, VINNAPAS® 828 ND is produced without the addition of alkylphenol ethoxylates (APEO), plasticizers or solvents.

VINNAPAS® 828 ND also exhibits high saponification resistance together with good compatibility with cement and high compatibility

with various pigments and fillers. Additionally of note is the dispersion's low flammability due to its high chlorine content, which makes the product ideal for use in exterior insulation and finish systems. VINNAPAS® 828 ND thus has a very broad spectrum of use in the area of paints and plasters.

Hydrophobic Dispersible Polymer Powders for Dry Facades

With its two new VINNAPAS® LL 5048 H and VINNAPAS® LL 4042 H grades, WACKER has rounded out its portfolio in the area of hydrophobic dispersible copolymer powders for the construction industry that are based purely on vinyl acetate and ethylene. Both powders have a glass transition temperature of about -7°C and are ideal for highly flexible formulations for facades.

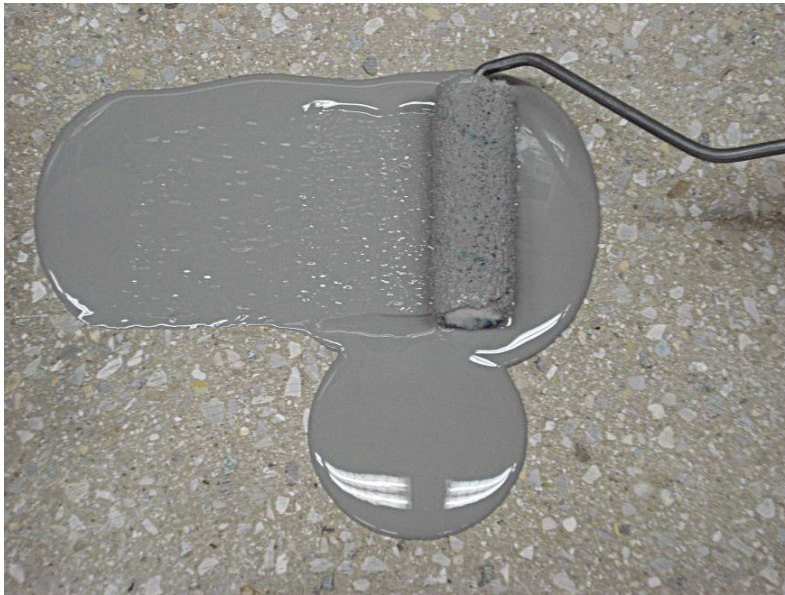
Both new dispersible powders in the established VINNAPAS® product line impart mortars with very high impact resistance and extremely low water take up, as well as excellent processability. A further feature is the improved adhesion of both grades, especially in the case of difficult surfaces such as polystyrene. Thixotropy, rheology, water retention and flow properties, on the other hand, remain unaffected. The powders are therefore ideal for combination with other mortar additives.

VINNAPAS® LL 4042 H gives a formulation good basic water repellency that is adequate for many applications. What's more, VINNAPAS® LL 5048 H exhibits such strongly hydrophobic properties that, in general, no further water-repellent additives are necessary. Since both powders show excellent bonding to EPS tiles, they are ideal for use in energy-saving EIFS. For instance, they can be used together with a SILRES® silicone resin plaster to produce long-lasting, robust and highly flexible facade protection.

Visit WACKER at the European Coatings Show 2011. You will find us in Hall 9, Booth 417.



Weathering test: The novel composite dispersion technology from the VINNAPAS® series combines the advantages of both its organic and inorganic components, imparting facades with long-lasting bright colors (photo: Wacker Chemie AG).



Hybrid liquid membranes for sealing flat surfaces and waterproofing: GENIOSIL® W is based on special hybrid polymers which are water-proof, yet vapor-permeable. This allows for the permanent sealing of large surfaces such as flat roofs, patios and basement walls (photo: Wacker Chemie AG).

Note:

These photos are available for download at:

<http://www.wacker.com/presseinformationen>

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The company in brief:

WACKER is a globally-active chemical company with some 15,600 employees and annual sales of around €3.78 billion (2009). WACKER has 26 production sites and over 100 sales offices worldwide.

WACKER SILICONES

Silicone fluids, emulsions, rubber and resins; silanes; pyrogenic silicas
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 and nonwovens as well as for polymeric materials based on renewable resources

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 photovoltaics industries

Siltronic

Hyperpure silicon wafers and monocrystals for semiconductor devices