

PRESS RELEASE

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ABRAFATI 2017

WACKER Presents Dispersions and Silicones for Coating, Adhesive and Print Applications

São Paulo, October 3, 2017 – WACKER is presenting a diverse range of new polymer- and silicone-based products for the region's coating, adhesive and print industries at ABRAFATI 2017. The company will display products including the PRIMIS® SAF 9000 dispersion and concentrated anti-graffiti agent SILRES® BS 710 for the dirt-repellent treatment of surfaces. Alongside the VINNAPAS® EF 575 dispersion for caulks and sealants, the Group will also present the VINNAPAS® EP 3360 binder for the formulation of low-odor interior paints and the polymer resin VINNOL® E 18/38 for printing ink. In addition, WACKER will introduce three binders for adhesive applications and two new silicone products for industrial coatings to the South American market. ABRAFATI will take place from October 3-6 in São Paulo, Brazil.

Easy-Care, Dirt-Repellent Surfaces

A special highlight of this year's ABRAFATI will be WACKER's latest solutions for dirt-repellent treatments for an exceptionally wide range of surfaces. Due to its unique composition, the dispersion PRIMIS® SAF 9000 is both oil-resistant and hydrophobic, meaning it protects wall paints against many different types of stains – from coffee and red wine to colored pencils. Just adding 10–20 percent of the dispersion in relation to the main binder is enough to allow dirt to be simply wiped off the wall using a sponge.

The new concentrated anti-graffiti agent SILRES® BS 710 is a one-part silicone rubber formulation that cures to form a silicone elastomer at room temperature and upon exposure to moisture. Thanks to the permanent, elastic, protective silicone film that it forms, graffiti can be easily washed off with water, while stickers, posters and signs can be removed effortlessly. A particular benefit of this product is that it contains no organotin compounds or oximes, and is formulated with little solvent.

New Binders for Adhesives and Sealants

At this year's ABRAFATI, WACKER will present the VAE dispersion VINNAPAS®EP 6420 for formulating water-based adhesives for demanding paper and packaging applications. This all-purpose VAE binder offers first class performance with nozzle applications featuring excellent running properties and no skin formation. The product displays a good balance between cohesion and adhesion, outstanding cleanability, high setting speed and good machine processability. Its optimal viscosity and high solids content combined with its high sedimentation stability – even when diluted to lower viscosities – allow VINNAPAS® EP 6420 to achieve formulations with a broad viscosity spectrum.

For hard-to-bond substrates that require increasingly strong adhesion WACKER has developed the new VINNAPAS® EP 701K dispersion. Its high ethylene content paired with a relatively low glass transition temperature ($T_g -10\text{ }^\circ\text{C}$) makes this VAE dispersion particularly flexible. Thanks to its strong bonding strength, high setting speed and good machine running properties, VINNAPAS® EP 701K is perfectly suited to laminating plastic films on coated and uncoated paper. Typical applications include paper bags, cardboard boxes, book covers or PVC (polyvinyl

chloride) lamination for furniture. Since the chemical composition of VINNAPAS® EP 701K renders additional plasticizers unnecessary, adhesives with a low migration potential can be formulated with this product.

WACKER will introduce the VINNAPAS® EF 575 dispersion for caulks and sealants to the South American market for the first time. The product is an ideal binder in sealing compounds for a range of applications, for example for joints in windows, stairs and doors, for cracks in walls and for sealing heating, ventilation and air-conditioning (HVAC) systems. With a relatively low glass transition temperature (Tg) of 0 °C, the binder based on vinyl acetate-ethylene copolymers provides sealants the flexibility they need. The VAE dispersion also adheres extremely well to aluminum as well as galvanized and stainless steel.

GENIOSIL®XM20 and GENIOSIL®XM25 are new silane-terminated polymers that serve as binders and modify the mechanical properties – particularly the modulus – of adhesives and sealants. These products improve the bonding properties of plasticizer-free adhesives, eliminating the need for traditional plasticizers in the end product. GENIOSIL® XM 20 is an alpha-silane-terminated polyether that opens the door to plasticizer-free adhesives with exceptionally high elasticity. Typical applications include wood-flooring adhesives and all-round adhesive sealants. GENIOSIL® XM 25, a gamma-silane-terminated polyether, allows the formulation of low-modulus sealants with exceptionally high elastic recovery. Potential applications include sealants for expansion joints in buildings made of industrially prefabricated concrete parts and for connection joints between window frames and walls.

Environmentally Sound Wall Paints: VINNAPAS® EP 3360

A vinyl acetate-ethylene (VAE) copolymer dispersion, VINNAPAS® EP 3360 is suitable for matt and semi-matt wall paints and plasters that exhibit very high scrub resistance and better hiding power than standard acrylic systems at the same PVC (pigment volume concentration) level. It also has a very low residual monomer content (< 200 ppm) and a very low formaldehyde content (< 20 ppm) and does not need organic solvents or coalescing agents. The dispersion makes it possible to formulate low-odor paints with an extremely low content of volatile organic compounds (VOC < 1 g/l) and is therefore ideal for locations where paints with low emission values are a must – such as children's bedrooms, hotels and public buildings (e.g. hospitals and schools).

Industrial Coatings Resistant to Heat and the Elements

Coatings that are stable at high temperatures and resistant to extreme heat – up to 600 °C – are the forte of the new SILRES® REN70-M binder. This product is almost entirely free of aromatic solvents (< 0.1%) and is particularly suitable for formulating coatings for industrial equipment, engine parts and stoves. SILRES® REN70-M offers the ideal combination of silicone resin's hardness and flexibility. As a binder in heat-resistant coatings, it effectively protects metal surfaces from corrosion, even at high operating temperatures or when subject to rapid temperature fluctuations.

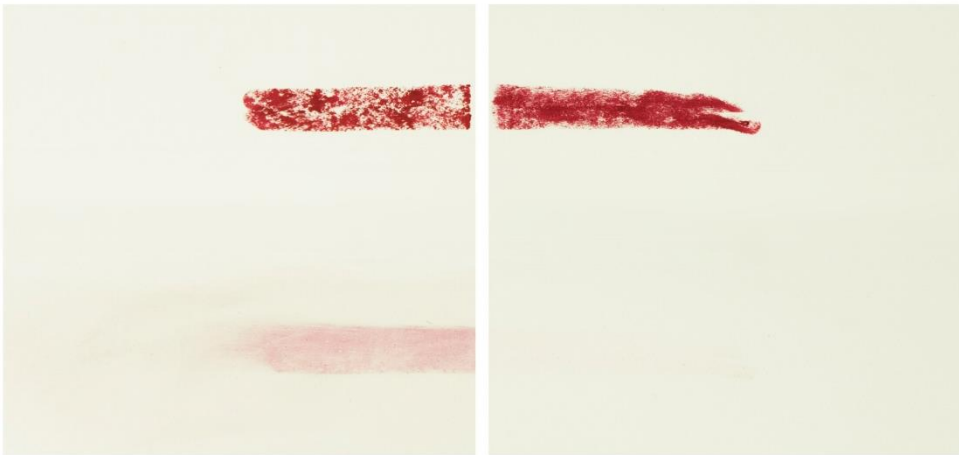
For weather-resistant finishes, WACKER offers SILRES® IC 235, a silicone intermediate containing no aromatic compounds at all that is used in coatings for bridges, wind turbine stators and industrial plants. The polysiloxane-based intermediate SILRES® IC 235 consists of a methoxy-functional phenyl methyl polysiloxane with a low molecular weight

distribution. The new silicone resin has been designed so that an addition of only 15 percent is sufficient to improve the UV and weathering resistance of the organic binder in a coating system – without detracting from its mechanical properties.

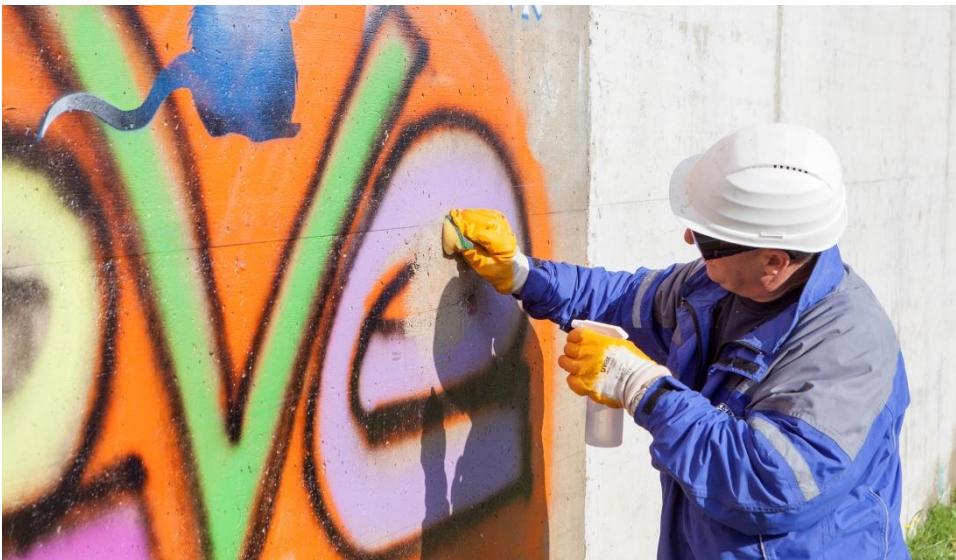
A New Binder for Digital Printing Inks: VINNOL® E 18/38

WACKER will also showcase the new low-viscosity binder VINNOL® E 18/38 for high-quality digital printing applications. The vinyl chloride-vinyl acetate copolymer resin, ensures excellent droplet formation in solvent-based ink-jet printer inks. This increases the print quality of the end product and extends the longevity of the print head. VINNOL® E 18/38 also adheres extremely well to flexible PVC along with numerous other substrates and is therefore ideally suited to printing on large-scale advertising banners, as well as cables, screw caps and many other plastic items.

Visit WACKER at ABRAFATI 2017, Booth D 5/6.



The new PRIMIS® SAF 9000 dispersion ensures permanently clean walls, as can be seen by a direct comparison – while the left-hand surface was painted with a conventional interior paint, the right-hand surface has been treated with a paint containing PRIMIS® SAF 9000. Even lipstick can be completely removed from the treated wall with a wet cloth (right bottom), while the untreated surface still shows visible stains after cleaning (left bottom) (photo: Wacker Chemie AG).



The new anti-graffiti coating from WACKER offers a fast, cost-effective means of removing graffiti. (Photo: Wacker Chemie AG)



The thermal resistance of the new SILRES® REN70-M binder is tested in the WACKER lab by coating steel plates with a paint containing the binder and heating them up to 650 °C (photo: Wacker Chemie AG).



One of the products that WACKER will be presenting at ABRAFATI is GENIOSIL® XM 20, an alpha-silane-terminated polyether that yields plasticizer-free adhesives with exceptionally high elasticity. Typical applications include wood-flooring adhesives and all-round adhesive sealants (photo: Wacker Chemie AG).

Note:

These photos are available for download at:

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

For further information, please contact:

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The company in brief:

WACKER is a globally-active chemical company with some 13,450 employees and annual sales of around €4.6 billion (2016, without Siltronic). WACKER has a global network of 23 production sites, 19 technical competence centers and 49 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