Wacker Chemie AG
Hanns-Seidel-Platz 4
81737 Munich, Germany
www.wacker.com

PRESS RELEASE

Number 6

EUROPEAN COATINGS SHOW 2023

WACKER Unveils Polymer Resin Binder with Enhanced Solubility for Use in Printing Inks, High-Solids, and UV-Curing Systems

Munich, February 23, 2023 – At the 2023 European Coatings Show, WACKER will be unveiling a new product from its VINNOL® family of solid resins: VINNOL® L-6868 binder is suitable for solvent-borne coatings, printing inks, high-solids, and UV-curing systems. It can also be used to formulate wood, paper, and film coatings. The new polymer resin has the lowest viscosity within the VINNOL® family. In addition, VINNOL® L-6868 is compatible with a wide range of UV monomers and reactive diluents. The product's most notable characteristic is its very good solubility in all kinds of solvents. The European Coatings Show will be held in Nuremberg, Germany, from March 28 to 30, 2023.

The binder is the film-forming component of any printing ink or coating. It encloses the pigment particles, bonds them together and to the substrate. Through its VINNOL® portfolio of products, WACKER already offers an extensive range of polymer resins that perform this very task in many application areas.

As innovative technologies and new processes emerge, the requirements of the printing inks and coatings industry keep changing. For

this reason, the company works continuously on developing its VINNOL® resins. Its latest development: VINNOL® L-6868. This polymer resin represents the optimal expansion to the product portfolio offered by WACKER, because it is an even better additive than the other polymer resins that are already available for UV-curing printing ink systems.

Development of the product started with VINNOL® H 40/43, an existing polymer resin grade. This is a copolymer of vinyl chloride and vinyl acetate that has no functional groups and is suitable for a wide range of solvents and UV monomers. Overall, it has the best solubility and, up to now, offered the lowest viscosity. However, several potential customers expressed a wish that its properties be improved even further.

To achieve this, WACKER experts modified its molecular composition. They minimized the copolymerized vinyl chloride content to 44 percent and maximized the vinyl acetate content to 56 percent. 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. At the same time, the lowering of the vinyl chloride content, which provides toughness and hardness in the polymer as well as chemical resistance of the coating, improves the processing properties of formulations.

The combination of modified polymer composition and very low molecular weight has the effect of substantially lowering the viscosity of the polymer resin. In a 20-% methyl ethyl ketone solution at 20 °C,

the viscosity of VINNOL® L-6868 is just 7 mPa*s. By comparison, the corresponding value for VINNOL® H 40/43 is 25 mPa*s. Even so, 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.

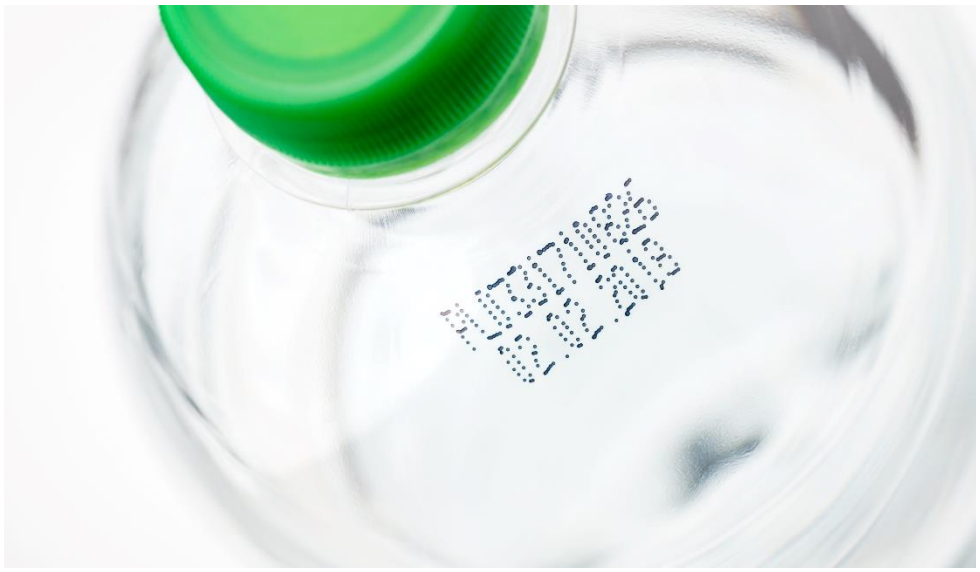
Due to its very low molecular weight, VINNOL® L-6868 represents the optimal solution for formulators addressing challenges relating to flow, intercoat adhesion, and flexibility in UV-curing systems. Applications for the new binder include printing inks, plastic coatings, wood coatings, paper and film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

The WACKER Academy Forum at ECS 2023

WACKER invites you to attend its topical lecture series at ECS. Experts will be on hand every day at the WACKER Academy Forum (Hall 1, Booth 1-312) between 9:30 a.m. and 5:00 p.m. to discuss the latest product and development trends in the construction, paints, coatings and sealants industries. The recurring theme of the talks will be issues of sustainability. On Tuesday, March 28, at 11:30 a.m., Peter Gigler, head of Corporate Sustainability at WACKER, will be giving a talk entitled “Race to Zero,” in which he will present the Group’s current sustainability goals. Detailed information on the entire WACKER Academy Forum lecture series is available at www.wacker.com/ecs.

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

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 upcoming European Coatings Show in Nuremberg. (Photo: WACKER)



Thanks to its very low molecular weight, VINNOL® L-6868 polymer resin binder from WACKER represents the optimal solution for formulators dealing with challenges relating to flow properties, intercoat adhesion, and flexibility in UV-curing systems. (Photo: WACKER)

Note:

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

For further information, please contact:
Wacker Chemie AG
Media Relations & Information
Florian Degenhart
Tel. +49 89 6279-1601
florian.degenhart@wacker.com
www.wacker.com
follow us on:

The Company in Brief:
WACKER is a global chemical company with some 14,400 employees and annual sales of around € 6.21 billion (2021).
WACKER has a global network of 27 production sites, 23 technical competence centers and 52 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