

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

PRESS RELEASE

Number 12

WACKER Unveils New Silicone Fluid Emulsion for Formulating Shampoos and Conditioners

Munich, May 4, 2020 – Munich-based chemical company WACKER has added two products to its silicone portfolio for hair care products: the silicone fluid emulsion BELSIL[®] DM 3200 E and the gloss agent BELSIL[®] PF 100. Both products are immediately available. Moreover, WACKER launched an online presentation of its new anti-pollution formulation which protects the skin against harmful environmental influences.

BELSIL[®] DM 3200 E is a fine-particle emulsion of a high-viscosity dimethiconol in water. The emulsion has a low viscosity and is therefore straightforward to use. It is ideal for formulating haircare products, where it serves as a conditioning component in shampoos and conditioners. BELSIL[®] DM 3200 E makes hair easier to comb after washing and leaves it feeling pleasantly soft to the touch.

The good conditioning properties of the high-molecular viscous silicone were unlocked by the development of a patented production process that is capable of dispersing the dimethiconol in the form of tiny droplets. When the hair is shampooed, the emulsion's silicone fluid droplets, which are just 160 nanometers in diameter, are deposited selectively on the hair fibers, protecting the hair much better than less finely dispersed emulsions.

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BELSIL[®] DM 3200 E is doubly beneficial, in that it makes wet hair exceptionally easy to comb and leaves dry hair feeling soft and supple. Laboratory tests have shown that the force needed to comb wet treated hair is reduced by more than 50 percent compared to untreated hair. What is more, the hair's suppleness is increased by 30 percent.

A further feature of BELSIL[®] DM 3200 E is its extraordinarily low content of cyclic silicone oligomers. Thanks to a new production process, the emulsion's content lies well below 0.1 percent. This means that shampoo and haircare formulations are now available with a particularly low content of cyclic compounds.

Gloss Agent BELSIL® PF 100

WACKER also has its spotlight on BELSIL[®] PF 100 (INCI: lauryl phenylisopropyl methicone), a phenyl-modified, polyfunctional product which complements the company's silicone portfolio.

The colorless fluid, which is virtually free of cyclic silicone oligomers, has been designed for use in haircare products and decorative cosmetics. Its refractive index of 1.464 is much higher than that of polydimethylsiloxanes and even higher again than that of conventional phenyl silicone fluids. As a result, BELSIL[®] PF 100 makes a highly effective gloss agent for the cosmetics sector.

By virtue of its molecular structure, BELSIL[®] PF 100 is soluble in organic solvents and many plant-based oils. This gloss agent can be used to make oil-based transparent formulations in which there is a need to replace cyclopentasiloxanes by organic fluids.

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Applications for the modified phenyl silicone fluid are myriad. They range from haircare and hairstyling products through to lip balms and color cosmetics. The new phenyl silicone fluid not only imparts a high level of sheen to hair but also leaves it feeling pleasantly soft to the touch and easier to comb. When added to lip balms and decorative cosmetics, BELSIL[®] PF 100 enhances their gloss and color brilliance. What is more, the sheen of hair oils can be given a particularly high boost by combining BELSIL[®] PF 100 with a silicone elastomer gel, such as BELSIL[®] EG 6000.

New Anti-Pollution Formulation

Today, WACKER also launched an online presentation of its new anti-pollution formulation. The key objective here is the prevention of oxidative stress, which can be triggered by harmful environmental factors, such as UV radiation, exhaust fumes, and heavy metals present in fine dust. All these can lead to the generation of free radicals in and on the skin, causing it to age prematurely.

WACKER's anti-pollution formulation has three strands to it: protection of the skin and hair surface with the aid of film-forming silicones, use of UV absorbers, and deactivation of free radicals by means of radical scavengers and antioxidants. The formulation also includes HTEssence[®], a nature-identical hydroxytyrosol which is one of the most powerful bioactive antioxidants used in the cosmetics and food-supplement sectors.

For details, please visit

https://www.wacker.com/cms/de-de/insights/anti-pollution.html

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BELSIL[®] Products – Now with Halal Certification

WACKER has a further success to report: all of the products in its BELSIL[®] portfolio meet the requirements of Halal Certification Services GmbH and have recently been authorized to carry a "halal" label. The halal certificates can be viewed under the following link:

https://www.wacker.com/cms/en-de/about-wacker/wacker-at-a-glance/corporatestrategy-and-policy-guidelines/ims/certifications.html



Ready for shipping: WACKER's new dimethiconol emulsion BELSIL[®] DM 3200 E. Used as an active ingredient in shampoos and conditioners, this emulsion protects the scaly surface of the hair, making it easier to comb after washing. (Illustration: WACKER)

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WACKER's phenyl silicone fluid BELSIL[®] PF 100. The product has a high refractive index and is compatible with organic oils. As a gloss agent, it can be used to formulate oil-based haircare products and decorative cosmetics. (Photo: WACKER)

Note:

These illustrations are available for download at: <u>http://www.wacker.com/pressreleases</u>

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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 globally active chemical company with some 14,700 employees and annual sales of around €4.93 billion (2019). WACKER has a global network of 24 production sites, 23 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