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PRESS RELEASE

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WACKER Unveils Highly Effective Silicone Emulsion for Hair Conditioners

Munich, June 1, 2021 – Munich-based chemical Group WACKER has developed a novel silicone co-emulsion for hair-care products. Available under the name BELSIL® DADM 3240 E, the product bestows pronounced conditioning properties, even when used in small amounts. The emulsion, which consists of two silicones, works by forming a loose network structure around the hair, conditioning it and providing lasting protection. It is particularly beneficial in shampoo formulations. The emulsion also boosts the efficacy of conditioners and leave-in products.

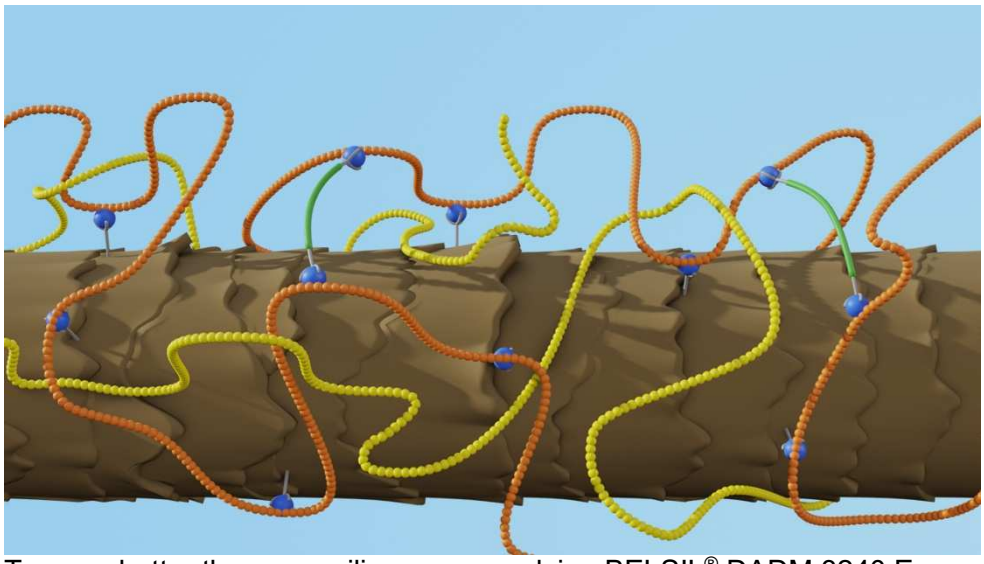
In developing BELSIL® DADM 3240 E, WACKER has succeeded in converting two silicones into an aqueous emulsion. The oil phase contains an amodimethicone crosspolymer with an embedded conventional dimethicone, i.e. unmodified silicone fluid. The crosspolymer develops a protective polymer network around the hair, ensuring that the conditioning silicone products remain on the hair for as long as possible.

The combination of dimethicone and crosspolymer is extremely effective: it renders even rough, damaged hair soft and supple and makes it easy to comb when wet or dry. The conditioning properties are much longer-lasting than those of conditioning products containing an un-

crosslinked silicone fluid. As a result of the treatment, hair regains its natural, healthy appearance.
BELSIL® DADM 3240 E is suitable for formulating shampoos, conditioners and leave-in products. In shampoo systems, the new co-emulsion is compatible with the usual surfactant systems employed in hair care and processing is straightforward. BELSIL® DADM 3240 E can be admixed without lowering the viscosity of the formulation or impairing the foaming properties of the shampoo.

The co-emulsion is highly effective, even at low concentrations. Shampoos formulated with mild, sulfate-free surfactants require just 0.8 percent silicone to boost hair suppleness by 35 percent, compared to untreated hair. That is roughly 20 percentage points better than a reference formulation based on a standard market dimethicone emulsion. Conventional silicone emulsions cannot produce such effects.

WACKER's new silicone co-emulsion BELSIL® DADM 3240 E has been developed for use in conditioners, hair treatments and leave-in products. The conditioning properties conferred by this product last much longer than those produced by conventional silicone emulsions.
(Photo: Wacker Chemie AG)



Two are better than one: silicone co-emulsion BELSIL® DADM 3240 E consists of an amodimethicone crosspolymer (orange) and a dimethicone (yellow). Thanks to its network structure (blue dots), the crosspolymer surrounds and protects the hair. It acts in synergy with the dimethicone to confer long-lasting conditioning properties. (Diagram: WACKER)

Note:

These illustrations 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 14,300 employees and annual sales of around € 4.69 billion (2020).
WACKER has a global network of 26 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

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

WACKER POLYSILICON
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