

PRESS RELEASE

Number 14

WACKER Cyclodextrins Improve the Foaming of Barista Toppings

Munich, July 8, 2020 – Coffee specialties like cappuccino, latte macchiato and café au lait are all characterized by a creamy milk foam. CAVAMAX [®] W6 cyclodextrin from WACKER improves the foaming properties of these barista toppings. Thanks to CAVAMAX [®] W6, the toppings whether dairy or plant-based, feature a high foam volume, uniform structure and long-lasting stability.

Coffee in all its variations is the preferred beverage not only of Germans - who consume 162 liters each per year. Indeed, most Europeans and North Americans reach for their coffee cup several times a day. Preparation varies according to culture, national customs and personal taste. Coffee specialties served with a froth of milk are extremely popular. In fact, preparing the frothy crown has become an art in itself - "latte art." This is the technique used by baristas - professionals skilled in coffee making - of creating individual pictures in the milk foam.

The challenge consists in creating a fine, homogeneous foam with a high volume and long-term stability. Alpha-cyclodextrin (alpha-dextrin for short), which WACKER produces from starch and markets under

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the CAVAMAX® W6 brand, provides a diverse range of properties that greatly enhance the foaming of milk.

The ring-shaped oligosaccharide has a hydrophilic or water-loving exterior and a lipophilic or fat-loving cavity. "This cavity can interact with lipophilic components of the barista milk, and form particulate complexes, which stabilize the foam structure and limit the coalescence of the liquid phase. CAVAMAX® W6 thus provides a uniform foam structure and long-term stability of the topping," explains Ulrike Fischer-Nägele, head of technical service in the Nutrition business team at WACKER. "The foam half-life - the time until the foam has shrunk to half its volume - can be significantly increased from 3 to about 15 minutes by the addition of CAVAMAX® W6."

CAVAMAX® W6 is a water-soluble, odorless and tasteless powder that is easy to handle and to incorporate into various preparations. "CAVAMAX® improves the foam properties of various toppings, either for dairy or plant-based milks or for powder products, which are reconstituted with water before use," explains Fischer-Nägele. It can thus be used to satisfy the demand for vegan coffee specialties. Market studies show that ever more consumers are turning to milk substitutes such as soya or almond drinks. In the USA alone, demand for these is growing by ten percent annually.

As starch fermentation products, cyclodextrins from WACKER are produced from renewable raw materials. They are cyclic oligosaccharides, based on glucose units and are differentiated into alpha-, beta- and gamma-cyclodextrin, depending on the size of the

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ring. Correspondingly, alpha-cyclodextrin, which WACKER markets under the CAVAMAX® W6 brand, is vegan, kosher and halal.



The perfect milk foam: CAVAMAX® W6 improves the foaming properties of barista toppings (photo: WACKER)



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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