

BELSIL® DADM 3240 E

Highly Effective Silicone Emulsion for Hair Care Applications

Shine, volume and manageability are key characteristics of attractive hair. WACKER already offers a broad range of silicone products specifically aimed at perfecting the transformation from a simple head of hair to a personal hairstyle and individual look. But now, with BELSIL® DADM 3240 E, WACKER has developed an innovative silicone co-emulsion with outstanding conditioning properties that protects hair and gives it a silky, smooth finish.

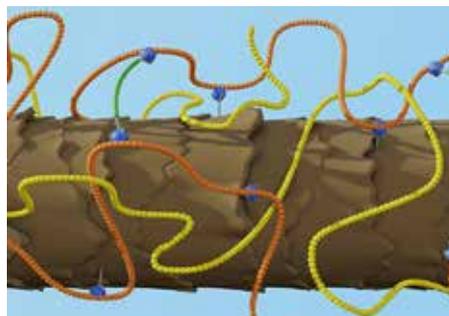
Protection Duo Improves Performance

The new co-emulsion, BELSIL® DADM 3240 E, relies on the synergy between two silicones to create a network-like structure that envelops the hair, providing gentle care and long-lasting protection. These properties make BELSIL® DADM 3240 E ideal for the formulation of shampoos, conditioners or leave-in products.

With BELSIL® DADM 3240 E, WACKER has succeeded in converting two silicones into an aqueous emulsion: an amodimethicone crosspolymer which is combined with an conventional dimethicone fluid. This protective polymer network wraps around the hair, ensuring that the conditioning silicone products protect hair for an extended length of time.

The combination of dimethicone and the amodimethicone crosspolymer is extremely effective:

- Even rough, damaged hair is made soft and supple
- It feels silky and makes wet or dry hair very easy to comb
- Its conditioning properties last longer than un-crosslinked silicone fluids



BELSIL® DADM 3240 E is made from an amodimethicone crosspolymer (orange) and a dimethicone (yellow). Its network-like structure, means the crosspolymer can envelop and protect the hair. The synergy between the crosspolymer and the dimethicone produces conditioning properties with a long-lasting effect.

Product Properties of BELSIL® DADM 3240 E

pH	4.0 – 6.0
Appearance	Milky liquid
Active ingredients [%]	44
Particle size [nm]	< 350
Preservative	Phenoxyethanol

These figures are only intended as a guide and should not be used when preparing specifications.

Formulation Flexibility

The new co-emulsion, BELSIL® DADM 3240 E, is compatible with all conventional surfactant systems. Not only can it be admixed without lowering the viscosity of the formulation or impairing the foaming properties of the shampoo, it is also easy to process with different types of thickeners and deposition agents.

Just a Little Gives a Lot

BELSIL® DADM 3240 E is highly effective, even in low concentrations. Shampoos formulated with mild, sulfate-free surfactants require just 0.8 percent of silicone to boost hair flexibility by 35 percent over untreated hair.



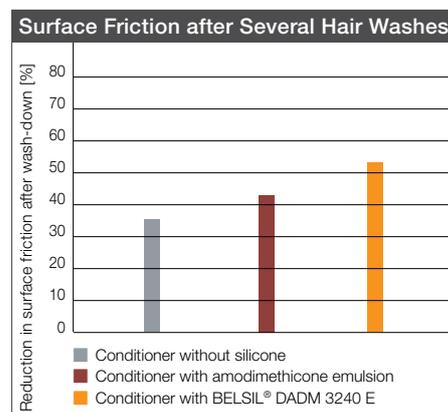
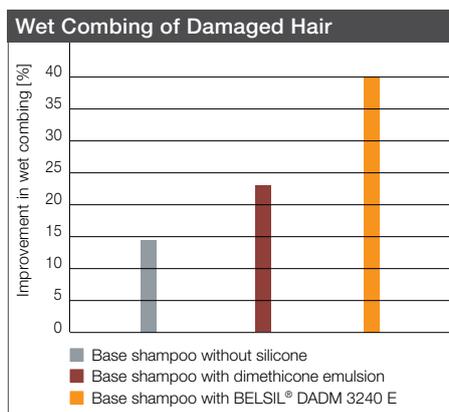
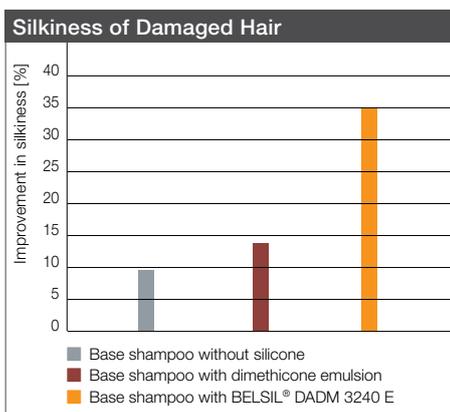
Developed for use in conditioners, hair treatments and leave-in products too, BELSIL® DADM 3240 E has conditioning properties that last longer than those in conventional silicone emulsions.

Details of BELSIL® DADM 3240 E Applications

With its broad palette of applications, BELSIL® DADM 3240 E brings particular benefits to damaged and stressed hair in shampoo formulations. It is also well suited for rinse-off conditioners, hair treatments, masks, anti-frizz products, not to mention as a conditioning aid in styling applications.

- Recommended use levels in shampoo formulations: 0.8% to 2.5%
- Recommended use levels in conditioner, treatment and mask formulations: 0.4% to 4.0%
- The emulsion should be formulated at temperatures below 35 °C

Note: BELSIL® DADM 3240 E needs to be stirred well before use.



**Sulfate-Free Shampoos:
Add Silkiness to Damaged Hair**

Shampoos containing BELSIL® DADM 3240 E achieve a more than twofold improvement in the silkiness of damaged hair compared to shampoos with conventional dimethicones. This is a real technological advance, especially as, unlike conventional silicone emulsions, this effect can be produced by just 0.8% of the silicone in the formulation of mild, sulfate-free shampoos.

**Sulfate-Free Shampoos:
Combing Wet, Damaged Hair**

BELSIL® DADM 3240 E makes combing wet hair much easier. In fact, wet combability is improved by 16.5 percentage points over commercial dimethicone emulsions, and this increases to 25 percentage points when the comparison is made with silicone-free formulations.

**Conditioner: Surface Friction after
Several Hair Washes**

WACKER's combination of a dimethicone and an amodimethicone crosspolymer yields compelling results in conditioner formulations. In particular, BELSIL® DADM 3240 E leaves bleached or dyed hair feeling silky-soft for longer.

A mere 0.5% of BELSIL® DADM 3240 E in a conditioner formulation is enough to reduce surface friction on the hair and this easily observable effect keeps hair feeling great even after several washes.

BELSIL® DADM 3240 E Benefits at a Glance

- Compatible with conventional hair-care surfactant systems
- Easy to process with surfactants, thickeners and deposition agents
- Admixing does not impair the formulation's viscosity or its foaming properties
- Highly effective, even at low concentrations
- Long-lasting conditioning effect
- Even after several washes, hair still feels silky-soft



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

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