



Consumer Solutions

DOWSIL™ CE-8411 Smooth Plus Emulsion

Adding Value to Life

ADVANCED TECHNOLOGY FOR HAIR MOISTURIZATION

Feel

- Slipperiness
- Smoothness
- Flexibility
- Light weight
- Ease of wet and dry combing

Appearance

- Shine
- Color retention

Efficacy

- Effective deposition
- Non-yellowing

Create Hair Conditioners and Shampoos That Moisturize

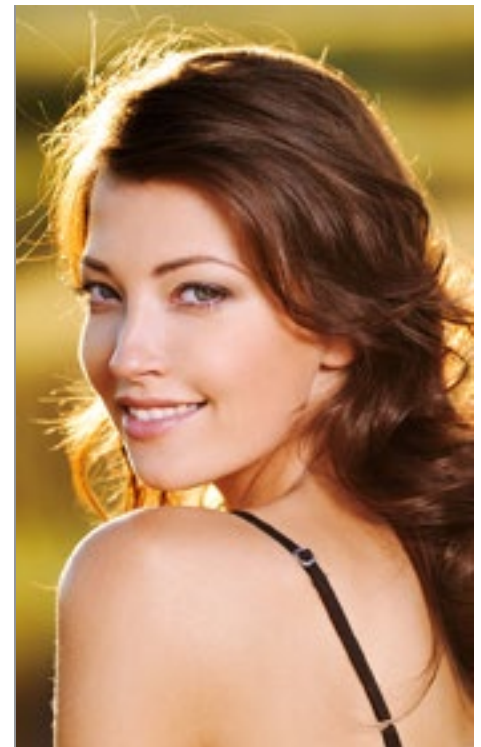
“Moisturizing” is one of the most popular attributes of today’s premium hair conditioners and shampoos. Consumers delight in hair that glides through their fingers like a river of silk. Supple, smooth and lightly flowing. Shapely, manageable hair with body, bounce and volume.

With DOWSIL™ CE-8411 Smooth Plus Emulsion, you can create luxury hair care products with the moisturizing feel consumers love. You also can deliver related benefits, such as enhanced shine and protection against color fading.

Trend-Driven Innovation for Hair Care

DOWSIL™ CE-8411 Smooth Plus Emulsion is representative of new advanced technology from Dow that is unleashing the potential of silicone and shaping the future of beauty. A nonionic silicone emulsion with amine and polyether functionality, DOWSIL™ CE-8411 Smooth Plus Emulsion is designed to add a moisturizing feel and conditioning benefits to shampoos and rinse-off conditioners.

Compared to silicone and non-silicone benchmarks with similar claims in shampoo and rinse-off conditioning applications, DOWSIL™ CE-8411 Smooth Plus Emulsion offers very good



moisturization performance. It delivers increased smoothness and slipperiness – as well as suppleness and flexibility – without weighing the hair down. Additionally, DOWSIL™ CE-8411 Smooth Plus Emulsion offers very good shine and color protection.



Moisturizing Performance that Dares to Compare

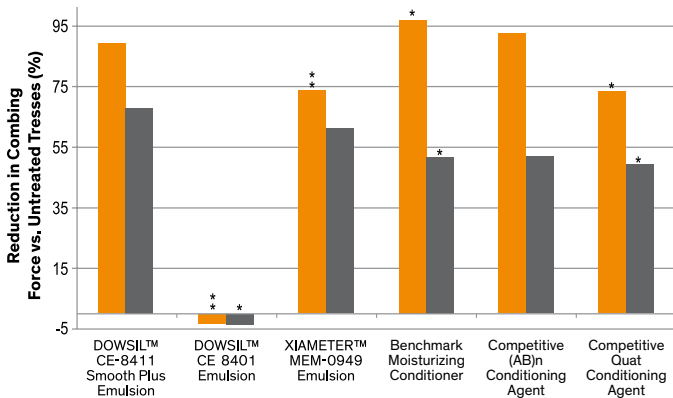
To demonstrate the moisturizing power of DOWSIL™ CE-8411 Smooth Plus Emulsion, we prepared sample shampoo and rinse-off conditioner formulations and compared them to the same formulations containing other silicone emulsions from Dow and competitive products that claim moisturizing benefits. We also compared these formulations to commercial benchmarks – a moisturizing shampoo and a moisturizing rinse-off conditioner currently on the market.

In dry combing, sensory testing, shine and color retention, DOWSIL™ CE 8411 Smooth Plus Emulsion either significantly outperformed or matched the performance of the other products tested. It also outperformed a similar product by Dow – DOWSIL™ CE 8401 Emulsion – in adding suppleness to hair. Here is just a sampling of our comparative test results.

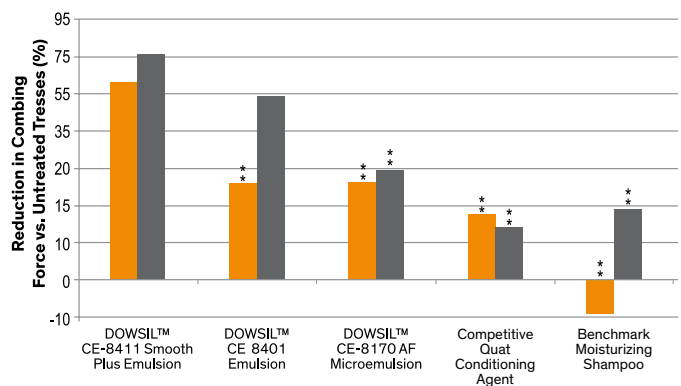
Improved Dry and Wet Combing

In dry combing, a good indicator of moisturizing feel, DOWSIL™ CE-8411 Smooth Plus Emulsion exceeded or matched the performance of the other products. It also performed well in wet combing.

Dry/Wet Combing – Rinse-Off Conditioner
Slightly Bleached Virgin Brown Hair



Dry/Wet Combing – Conditioning Shampoo
Slightly Bleached Virgin Brown Hair

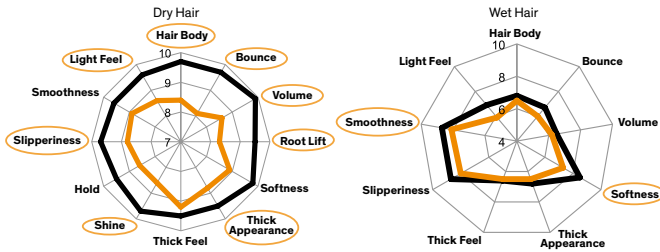


■ Wet ■ Dry **Treatment level:** 0.8g or 0.4/1g hair, 1% silicone actives; **Significant difference** (vs. DOWSIL™ CE-8411 Smooth Plus Emulsion): * = 99% * = 95.0%

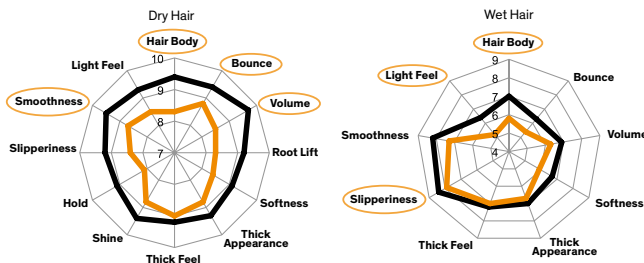
An Outstanding Sensory Experience

In a half-head sensory test of DOWSIL™ CE-8411 Smooth Plus Emulsion compared to a similar product by Dow, DOWSIL™ CE-8411 Smooth Plus Emulsion delivered outstanding performance on dry hair in a rinse-off conditioner and good performance on wet hair, especially in a conditioning shampoo.

Half-Head Test – Rinse-Off Conditioner



Half-Head Test – Conditioning Shampoo



— DOWSIL™ CE-8411 Smooth Plus Emulsion — DOWSIL™ CE-8401 Emulsion
 Treatment level: 1% silicone actives Evaluation: 5 panelists
 Significant difference (vs. DOWSIL™ CE-8411 Smooth Plus Emulsion): ○ = 95.0%



TYPICAL PROPERTIES AND USE LEVELS

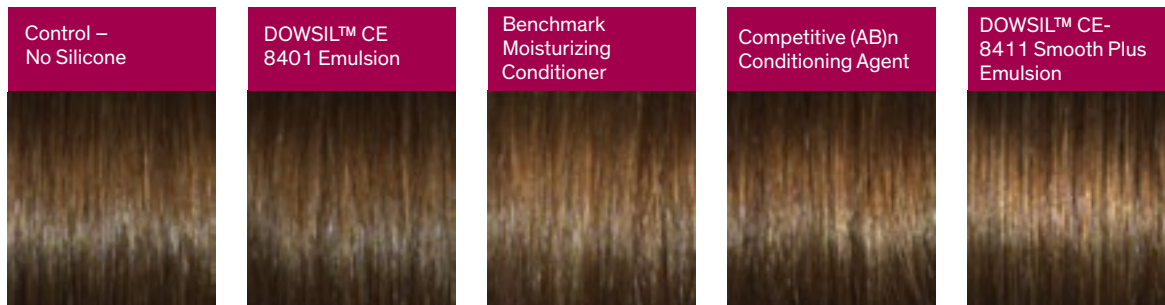
INCI name: Bis-Diisopropanolamino-PG-propyl Dimethicone/Bis-Isobutyl PEG-14 Copolymer (and) Polysorbate 20 (and) Butyloctanol

DOWSIL™ CE-8411 Smooth Plus Emulsion is a milky-white, pourable nonionic emulsion with an active silicone content of ~56%. It is easy to formulate in water-based hair care products.

Recommended use levels for conditioners and shampoos are 1-5%.

Shine – Rinse-Off Conditioner

Slightly Bleached Virgin Brown Hair



Superior shine

DOWSIL™ CE-8411 Smooth Plus Emulsion significantly outperformed everything we tested in its ability to add shine to hair.

For samples and formulations

To download conditioner and shampoo formulations and a product data sheet for DOWSIL™ CE-8411 Smooth Plus Emulsion or to request a product sample, visit consumer.dow.com.

Beauty care that does more

Dow is creating differentiating specialty silicone solutions that bring beauty to life in a way that has a lasting effect on your business and on the lives of consumers everywhere.

How can we help you today?

When you need industry-leading innovation, Dow can help. Solutions by Dow are dedicated to meeting your needs for specialty materials, collaborative problem solving and innovation support. Learn how we can help you bring BEAUTY WITH IMPACT to your products, at consumer.dow.com. Or contact your local Dow sales representative.

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Form No. 27-1403-01 C