

Technical Information

ABIL® Soft AF 100

Silicone based conditioning agent for improved body and volume hair

Intended use

Conditioning agent

Benefits at a glance

- Strongly substantive to hair and skin keratin due to the aminofunctional groups.
- For conditioners and shampoos (especially clear ones).
- Easy to use, self-emulsifying.
- Liquid, high active.

INCI (PCPC Name)

Methoxy PEG/PPG-7/3 Aminopropyl Dimethicone

Chemical and physical properties (not part of specifications)

| | |
|------------|--------------------------|
| Appearance | Liquid |
| Type | Aminofunctional siloxane |

Properties

ABIL® Soft AF 100 conditions and volumizes fine hair. Hair treated with ABIL® Soft AF 100 is easier to comb and smoother. These benefits are especially evident on chemically treated hair.

ABIL® Soft AF 100 improves the substantivity of skin care emulsions.

ABIL® Soft AF 100 is a liquid and easy to handle. During preparation, the self-emulsifying property is beneficial as it forms a fine dispersed emulsion in water.

ABIL® Soft AF 100 contains hydrophilic groups. This makes it more compatible with aqueous systems when compared to Amodimethicone.

Since ABIL® Soft AF 100 is easy to solubilize with surfactants, it can be used in clear shampoo or shower bath formulations.

Application

ABIL® Soft AF 100 is used in:

- Conditioners and emulsions
- Shampoos and skin cleansing formulations

ABIL® Soft AF 100 improves the manageability of the hair. The loss of volume, which is common when using traditional hair conditioners, can be avoided by using ABIL® Soft AF 100.

Figure 1 shows the result of a sensory test on hair swatches. Cetrimonium Chloride (CTAC = VARISOFT® 300) provides in a standard conditioner formulation (0.5% Cetareth-25, 2% Cetyl Alcohol, 2% conditioning agent, pH 4) a very good wet combability. It is known that the influence of CTAC on the volume in this application is poor. By combining CTAC with ABIL® Soft AF 100 the judgement of the volume effect will be significantly improved.

In this test Amodimethicone shows no positive influence on body/volume. "Control" marks the test formulation without conditioning additive.

The combination of ABIL® Soft AF 100 with cationic conditioning additives is especially advantageous. By combining it with an alkyl-trimethyl ammonium chloride like VARISOFT® 300 (Cetrimonium Chloride) or VARISOFT® BT 85 (Behentrimonium Chloride) an optimum of conditioning effect is obtained.

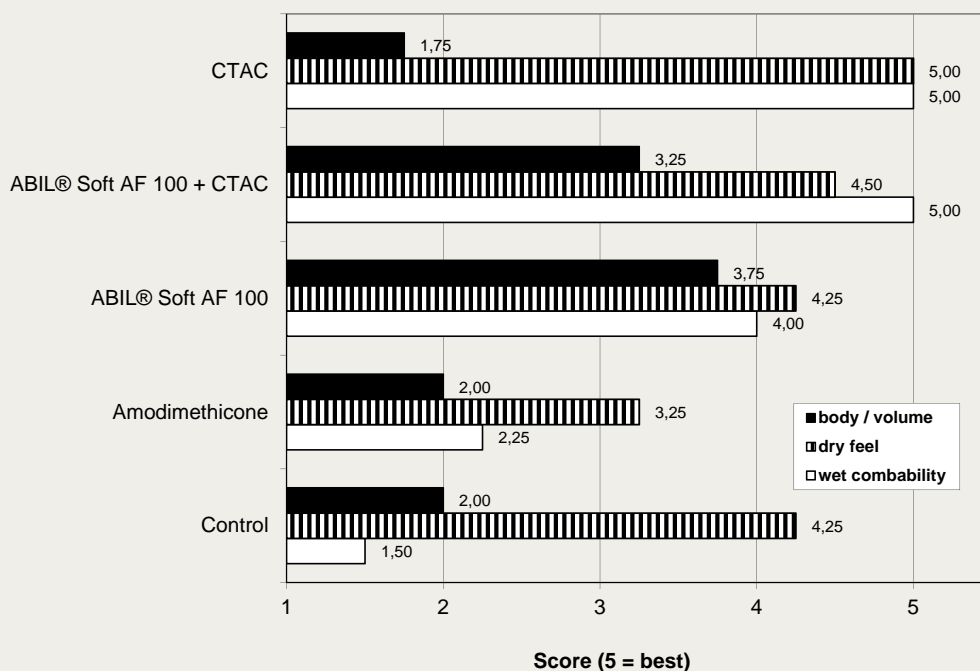


Figure 1: Results of a sensory test with conditioning rinse on hair swatches

Standard conditioner formulation: 0.5% Cetareth-25, 2.0% Cetyl Alcohol; 2.0% conditioning agent, pH 4

Suggested usage concentration

- 0.3 – 4.0% ABIL® Soft AF 100 in conditioners
- 2.0% ABIL® Soft AF 100 in shampoos and skin cleansing preparations
- 1.0% ABIL® Soft AF 100 in skin care emulsions.

Processing Hints

For conditioners and emulsions

Add ABIL® Soft AF 100 to the oil phase.

For shampoo formulations

Solubilize ABIL® Soft AF 100 with anionic surfactant(s), water insoluble ingredients and solubilizers, if necessary, and stir until it is homogeneous.

Add the water and then the amphoteric surfactants (e. g. TEGO® Betain or REWOTERIC®), water soluble ingredients, thickeners (e.g. ANTIL®, REWODERM® LIS 80) and pearlzers (e. g. TEGO® Pearl), if wanted.

Hazardous goods classification

Information concerning

- classification and labelling according to regulations for transport of chemicals
- protective measures for storage and handling
- measures in case of accidents and fire
- toxicological and ecotoxicological effects

is given in our safety data sheets.

F 07/19

Guideline formulations

If you are interested in guideline formulations please visit our homepage <https://personal-care.evonik.com>.

F 07/19

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