

## BENTONE GEL® Products for D5-free Formulations

Elementis offers a variety of BENTONE GEL options for formulators developing cyclopentasiloxane-free cosmetics. Available in a broad range of cosmetic oils, the BENTONE GEL additive portfolio provides multi-benefit rheology solutions suitable for a wide variety of cosmetic systems. Whether formulating for color cosmetics or skin care, BENTONE GEL additives provide the cosmetic chemist with the following functional and aesthetic benefits:

- Thermostable viscosity control
- Excellent application sensory
- Suspension control of pigments and actives
- Emulsion stabilization
- Silky skin feel
- Batch to batch formulation consistency

### Volatile BENTONE GEL additives

These products are best for formulators seeking a weightless texture, long wear or matte finish. The carriers used in these gels are volatile.

	INCI Name	Benefits	Volatility vs D5	Flash Point °C	Carrier Spreadability vs D5
<b>BENTONE GEL® VS1 V</b>	Trisiloxane (and) Disteardimonium Hectorite (and) Triethyl Citrate	Volatile silicone-based gel D5-free Propylene carbonate-free Balances elegant feel and volatility	Highest	30	Higher 5% lower surface tension
<b>BENTONE GEL® ISD V</b>	Isododecane (and) Disteardimonium Hectorite (and) Propylene Carbonate	Volatile carrier for long wear products Excellent pigment suspension Dry skin feel Ideal for matte and oily skin applications	Much higher	43	Lower 38% higher surface tension
<b>BENTONE GEL® PIO V</b>	Hydrogenated Polyisobutene (and) Disteardimonium Hectorite (and) Propylene Carbonate	Improves slip Reduces greasiness Silky residual skin feel Ideal for matte or satin finish cosmetics	Higher	50	Lower ~50% higher surface tension
<b>BENTONE GEL® OMS V</b>	C11-12 Isoparaffin (and) Disteardimonium Hectorite (and) SD Alcohol 40-B	Closest to D5 volatility Light, dry feel Suitable for quick drying skin care or color cosmetics	Higher	60	Lower 28% higher surface tension

continued...

## BENTONE GEL® Products for D5-free Formulations

### Silicone-based BENTONE GEL additives

The following products may provide the best compatibility and function for predominantly silicone formulations.

	INCI Name	Benefits	Volatility	Carrier Spreadability vs D5
<b>BENTONE GEL® VS1 V</b>	Trisiloxane (and) Disteardimonium Hectorite (and) Triethyl Citrate	Volatile linear silicone-based gel Propylene carbonate-free Balances elegant feel and volatility	High volatility	Higher 5% lower surface tension
<b>BENTONE GEL® DM5 V</b>	Dimethicone (and) Disteardimonium Hectorite (and) Triethyl Citrate	Very low viscosity silicone base Silky, light feel Ideal for formulas with a light texture and dewy finish	Non-volatile	Lower ~30% higher surface tension
<b>BENTONE GEL® PTM V</b>	Phenyl Trimethicone (and) Disteardimonium Hectorite (and) Triethyl Citrate	Organosilicone-based gel High refractive index Outstanding particle dispersion Ideal for formulas with a light texture and high shine	Non-volatile	Lower ~30% higher surface tension

### Naturally-Derived BENTONE GEL additives

These gels contain naturally derived emollients for those seeking to formulate with natural ingredients. These options are non-volatile and will add weight to the formula compared to cyclopentasiloxane-based gels.

	INCI Name	Benefits	% Natural Origin <sup>1</sup>	Carrier Spreadability vs D5
<b>BENTONE GEL® HS V</b>	C13-15 Alkane (and) Disteardimonium Hectorite (and) Alcohol	Ecocert hemisqualane carrier Light dry skin feel Reduces greasiness of select actives	98%	Similar spreading characteristics to D5
<b>BENTONE GEL® GTCC V</b>	Caprylic/Capric Triglyceride (and) Stealkonium Hectorite (and) Propylene Carbonate	Naturally derived emollient Improves slip Reduces greasiness and tackiness Provides stability and thixotropy for emulsions	95%	Significantly lower spreadability 60% higher surface tension
<b>BENTONE GEL® EUG V</b>	Octyldodecanol (and) Disteardimonium Hectorite (and) Propylene Carbonate	Naturally derived emollient Lubrication properties Soft skin feel Improves slip Increases oil phase viscosity Enhances formulas stability	97%	Significantly lower spreadability 55% higher surface tension

<sup>1</sup> Natural origin determination in accordance with ISO 16128

*NOTE: The information herein is currently believed to be accurate. We do not guarantee its accuracy. Purchasers shall not rely on statements herein when purchasing any products. Purchasers should make their own investigations to determine if such products are suitable for a particular use. The products discussed are sold without warranty, express or implied, including a warranty of merchantability and fitness for use. Purchasers will be subject to a separate agreement which will not incorporate this document.*

© Copyright 2018, Elementis Specialties, Inc. All rights reserved. Copying and/or downloading of this document or information therein for republication is not allowed unless prior written agreement is obtained from Elementis Specialties, Inc.

© Trademark of Elementis Specialties, Inc.

October 2019

#### North America

Elementis  
469 Old Trenton Road  
East Windsor, NJ 08512, USA  
Tel.: +1 609 443 2500  
Fax: +1 609 443 2422

#### Europe

Elementis UK Ltd.  
c/o Elementis GmbH  
Stolberger Strasse 370  
50933 Cologne, Germany  
Tel.: +49 221 2923 2066  
Fax: +49 221 2923 2011

#### Asia

Deuchem (Shanghai) Chemical Co., Ltd.  
99, Lianyang Road  
Songjiang Industrial Zone  
Shanghai, China 201613  
Tel.: +86 21 5774 0348  
Fax: +86 21 5774 3563