



Technical Data Sheet

DOWSIL™ EL-TIPS Silicone Elastomer Blend

Description

INCI NAME: C13-15 Alkane (and) Dimethicone/Vinyl Dimethicone Crosspolymer

Sustainability Attribute:



Uses / Applications

Can be used in wide range of personal care products such as:

- Facial care & body lotions
- Body oils
- Color cosmetics
- Fragrance gels

Benefits

- Low color and high clarity
- High solid content elastomer
- Easy to formulate
- Cold process
- Inherently biodegradable carrier
- Compatible with a variety of ingredients such as organics and alcohol free fragrances
- Provides a rich smooth after feel
- Blur skin imperfections

Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Property	Unit	Result
Viscosity	cP	250,000–550,000
Appearance		Clear to translucent
Elastomer Content	%	24–32
Natural Origin Index (ISO ¹ -16128-2, December 2017)		0.7
Flash Point	°C	> 95
Cyclotetrasiloxane (D4)	%	< 0.1
Cyclopentasiloxane (D5)	%	< 0.1
Cyclohexasiloxane (D6)	%	< 0.1

1. ISO: International Standardization Organization

Description

DOWSIL™ EL-TIPS Silicone Elastomer Blend is a high solid silicone elastomer blend in a bio-based hydrocarbon material sourced from sugar-cane.

How to Use

DOWSIL™ EL-TIPS Silicone Elastomer Blend needs to be in the oil phase of the formulation. Add the oils into DOWSIL™ EL-TIPS Silicone Elastomer Blend using simple mixing to achieve a uniform dispersion. The viscosity of DOWSIL™ EL-TIPS Silicone Elastomer Blend decreases as it is diluted with other oils. Figure 1 illustrates this effect when C13-15 Alkane is used as the diluent.

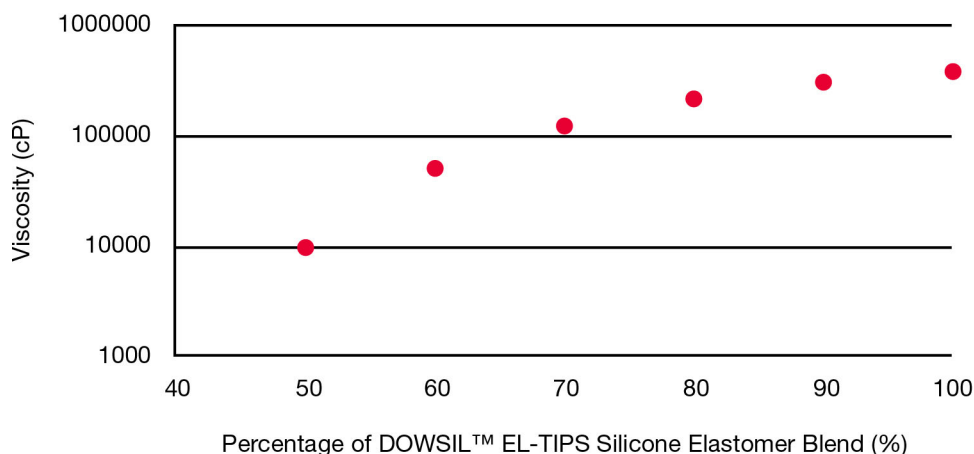


Figure 1: Dilution curve of DOWSIL™ EL-TIPS Silicone Elastomer Blend, diluted with C13-15 ALKANE.

Formulation Tips

DOWSIL™ EL-TIPS Silicone Elastomer Blend may be formulated into oil-in-water emulsions, water-in-silicone emulsions, water-in-oil emulsions and anhydrous products. It may be added to the oil phase or silicone phase in the formulations. For ease of use, its viscosity may be reduced by blending with low viscosity fluids. It is dispersible in a variety of liquid oils, as referenced in the compatibility Table 1.

Table 1: Compatibility with Common Cosmetic Ingredients

DOWSIL™ EL-TIPS Silicone Elastomer Blend: Ingredients	Ratio 1:9	Ratio 5:5	Ratio 9:1
Hydrocarbons			
Isododecane	C	C	C
Isohexadecane	H	C	C
Mineral Oil	NC	NC	C
Silicones			
Cyclopentasiloxane (XIAMETER™ PMX-0245 Fluid)	C	C	C
Dimethicone (XIAMETER™ PMX-200 Silicone Fluid 5 cSt)	C	C	C
Dimethicone (XIAMETER™ PMX-200 Silicone Fluid 100 cSt)	C	C	C
Caprylyl Methicone (DOWSIL™ FZ-3196 Fluid)	C	C	C
Phenyl Trimethicone (DOWSIL™ 556 Cosmetic Grade Fluid)	H	C	C

C = compatible and clear H= compatible and hazy NC= non compatible

Table 1: Compatibility with Common Cosmetic Ingredients (Cont.)

DOWSIL™ EL-TIPS Silicone Elastomer Blend: Ingredients	Ratio 1:9	Ratio 5:5	Ratio 9:1
Vegetable Oils			
Sunflower Oil	NC	NC	H
Castor Oil	NC	NC	NC
Hydrophilic			
Water	NC	NC	NC
Ethanol	NC	NC	C
Esters			
C12-15 Alkyl Benzoate	NC	NC	C
Caprylic/Capric Triglyceride	NC	NC	C
Sunscreen			
Ethyl Hexyl Salicylate	NC	H	C
Renewable Sourced Carrier			
C13-15 Alkane	C	C	C
Undecane (and) Tridecane	C	C	C

**Formulation Tips
(Cont.)**

DOWSIL™ EL-TIPS Silicone Elastomer Blend has compatibility with some organic oils and also with high percentage of alcohol free perfume (~16%).

**Handling
Precautions**

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

**Usable Life and
Storage**

When stored between 25°C and 40°C (104°F) in the original unopened containers, this product has a usable life of 24 months from the date of production.

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

**Health and
Environmental
Information**

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, dow.com or consult your local Dow representative.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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