

DuPont™ Liveo™ Silicone Elastomer Blends

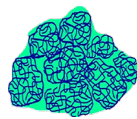
Give your formulations sensory and drug delivery flexibility

Liveo™ Silicone Elastomer Blends are specialty silicone products that offer multifunctional benefits to formulations, including a unique smooth feel, effective delivery of actives and a mattifying effect. They also are non-occlusive to semi-occlusive to moisture, depending on their composition, and they enable rheological modification to formulations.

Topical formulations based on Liveo™ Silicone Elastomer Blend technology show good drug delivery capability, which has been demonstrated experimentally with the release of model drugs.

Silicone elastomer technology

Liveo™ Silicone Elastomer Blends are swollen and dispersed crosslinked polydimethylsiloxane (PDMS) balls in a volatile or non-volatile fluid.



Elastomeric network swollen with carrier fluid.

Liveo™ Silicone Elastomer Blend product portfolio

Specification writers: These values are not intended for use in preparing specifications. Please contact your local Liveo™ representative prior to writing specifications on these products.

	Liveo™ ST-Elastomer 10	Liveo™ TE-9320 Silicone Elastomer Blend ⁽¹⁾	Liveo™ TE-9330 Silicone Elastomer Blend ⁽¹⁾
INCI name	Cyclopentasiloxane and Dimethicone Crosspolymer	Dimethicone and Dimethicone Crosspolymer	Dimethicone and Dimethicone Crosspolymer
Carrier fluid	Cyclopentasiloxane	Dimethicone, 2 cSt	Dimethicone, 5 cSt
Carrier volatility	Volatile	Volatile	Non-volatile
Solid content, %	~15	~15	N/A
D4, %	<1	<0.1	<0.1
D5, %	~85	<0.1	<0.1
D6, %	N/A	<0.1	<0.1

⁽¹⁾New development with low cyclosiloxane content. Has been designed to meet the substance of very high concern (SVHC) threshold for concerned cyclosiloxanes (below 0.1%) proposed by REACH regulation (EC) No 1907/2006.

Key benefits

- Smooth skin feel
- Form a non-tacky film on skin
- Thickening agent for anhydrous and water-in-oil emulsions
- Non-occlusive to semi-occlusive to moisture, depending on carrier fluid
- Easy to formulate in topical forms



Special features and properties

- Sensorial benefits

Applications

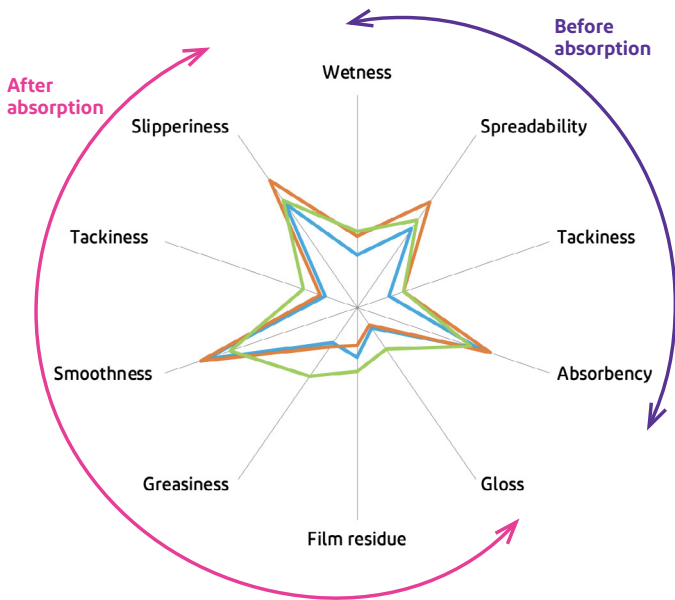
Liveo™ Silicone Elastomer Blend technology can be incorporated easily into many product forms:

- Gels, creams and novel forms to improve patient compliance due to unique sensory feel
- Creams and gels that offer a mattifying effect for acne applications

Target indications

Drug delivery topical formulations for prescription and over-the-counter therapies focusing on growth indications such as atopic dermatitis, psoriasis, acne and scar management

Sensory evaluation results before and after application

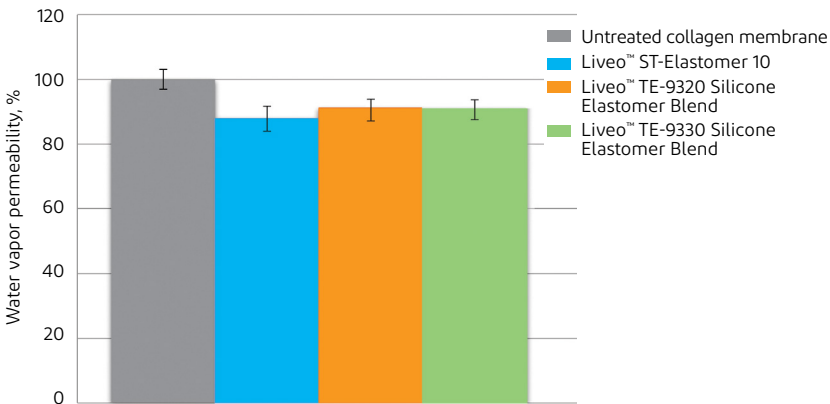


— Liveo™ ST-Elastomer 10
 — Liveo™ TE-9320 Silicone Elastomer Blend
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Statistical results ($\alpha < 0.05$)	Liveo™ ST-Elastomer 10	Liveo™ TE-9320 Silicone Elastomer Blend ⁽²⁾	Liveo™ TE-9330 Silicone Elastomer Blend ⁽²⁾
Wetness	a	b	b
Spreadability	a	b	a
Tackiness	a	a	a
Absorbency	ab	a	b
Gloss	a	a	b
Film residue	a	a	a
Greasiness	a	a	b
Smoothness	a	a	b
Tackiness	a	ab	b
Slipperiness	a	b	a

Note: For each parameter, the use of the same letter indicates the products show no significant difference (95%). | ⁽²⁾New development.

Water vapor permeability measured by Payne cup



Note: Untreated non-occlusive collagen membrane is fixed at 100%.

For more information about DuPont™ Liveo™ Silicone Elastomer Blends

Visit liveo.dupont.com – or scan the QR code below to be taken directly to the Liveo™ Silicone Excipients web page, where you'll find the Liveo™ Silicone Elastomer Blends. For sample requests, contact your Liveo™ representative.



To learn more about DuPont™ Liveo™ Healthcare Solutions, visit liveo.dupont.com.



Smarter Healthcare.
 Positive Patient Outcomes.

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