

# BELSIL® EG 5

CYCLOPENTASILOXANE, DIMETHICONE/VINYL DIMETHICONE CROSSPOLYMER

## Product description

BELSIL® EG 5 elastomer gel is a silicone copolymer network blended with a cyclopentasiloxane. It appears as a transparent gel providing a very pleasant sensorial sensation during the application and after use. BELSIL® EG 5 can easily be diluted with low viscous silicones, to adjust the viscosity as required. BELSIL® EG 5 can act as a thickener in formulations. In addition it exhibits shear thinning behavior, which allows formulating cosmetic products that spread easily during application and facilitates the incorporation of pigments into a formulation.

## Special features

BELSIL® EG 5 is easy to distribute on skin and gives a nice, non-greasy, silky skin feel. BELSIL® EG 5 leaves a non-tacky film which improves matte effect on skin. It provides dry smoothness and light, silky non-greasy powdery skin feel. BELSIL® EG 5 has the ability to act as a thickening agent.

## Application

BELSIL® EG 5 is typically added to the oil or silicone phase of a formulation or to an already formed emulsion. The product should be worked in thoroughly to yield optimal results. When BELSIL® EG 5 is diluted with solvents the viscosity of the product is significantly decreasing and can hence be easily adjusted. The performance properties of BELSIL® EG 5 make it a very versatile ingredient for various skin care, color cosmetic products. It also can add a cushiony feel to moisturizing creams, eye gels, foundations, concealers and BB creams.

BELSIL® EG 5 can be used to thicken the oil phase of

emulsions or anhydrous cosmetic formulations. In pressed powder cosmetics it acts as binder. Other typical applications of BELSIL® EG 5 are in mascaras, cleansing products, styling products, conditioners, deodorants and much more.

## Processing

BELSIL® EG 5 is a high viscous material, however it is strongly shear thinning and can hence easily be pumped using suitable equipment. Upon storage, the viscosity of BELSIL® EG 5 may apparently increase. However as the viscosity data vary significantly depending on how the gel is stirred, we recommend to thoroughly mix BELSIL® EG 5 before any viscosity measurement. If the product is stored for an extended period of time, we also recommend to well stir the product before use.

## Storage

The 'Best use before end' date of each batch is shown on the product label.

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

## Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be printed via WACKER web site <http://www.wacker.com>.

**Product data**

<b>Typical general characteristics</b>	<b>Inspection Method</b>	<b>Value</b>
Appearance and color		clear to slightly translucent gel
Elastomer content		13 - 15 %
Flash point	ISO 3679	63 °C
Density at 20 °C, at 1013 hPa	ISO 1183-1 A	0,9 - 1,2 g/cm <sup>3</sup>
Viscosity, dynamic at 25 °C	specific method	200000 - 400000 mPa.s
INCI name		Cyclopentasiloxane, Dimethicone/Vinyl Dimethicone Crosspolymer

These figures are only intended as a guide and should not be used in preparing specifications.

**Organic Compatibility BELSIL® EG 5**

Compatibility evaluated using 90/10 blend of solvent/elastomer gel at 23°C

Type of solvent	INCI	Result
Mineral Oil	Mineral Oil	NC
	Hydrogenated Polydecene	NC
	C9-C13 Isoparaffin	C
Ester Oils	C12-15 Alkyl Benzoate	NC
	Isopropyl Myristate	SH
	Decyl Oleate	NC
	Cocoglycerides	NC
	Caprylic/ Capric Triglyceride	NC
	Diisobutyl Adipate	NC
UV-Filters	Ethylhexyl Salicylate	NC
	Ethylhexylmethoxy Cinnamate	NC
Triglycerides	Castor Oil	NC
	Lanolin Oil	NC
	Macadamia Ternifolia Seed Oil	NC
	Olive Oil	NC
Alcohols & Water	Glycerol	SH
	Isopropanol	NC
	Ethanol	NC
	Water	NC
Silicone Fluids	Cyclopentasiloxane	C
	Disiloxane (BELSIL® DM 0.65)	C
	Dimethicone (BELSIL® DM 1 Plus)	C
	Dimethicone (BELSIL® DM 5)	C
	Dimethicone (BELSIL® DM 350)	C
	Trimethylsiloxyphenyl Dimethicone (BELSIL® PDM)	SH

**C = Clear (miscible)**
**SH = Slightly Hazy**
**H = Hazy**
**NC = Not Compatible**

**Organic Compatibility BELSIL® EG 5**

Compatibility evaluated using 50/50 blend of solvent/elastomer gel at 23°C

Type of solvent	INCI	Result
Mineral Oil	Mineral Oil	NC
	Hydrogenated Polydecene	NC
	C9-C13 Isoparaffin	C
Ester Oils	C12-15 Alkyl Benzoate	NC
	Isopropyl Myristate	NC
	Decyl Oleate	NC
	Cocoglycerides	NC
	Caprylic/ Capric Triglyceride	NC
	Diisobutyl Adipate	NC
UV-Filters	Ethylhexyl Salicylate	NC
	Ethylhexylmethoxy Cinnamate	NC
Triglycerides	Castor Oil	NC
	Lanolin Oil	NC
	Macadamia Ternifolia Seed Oil	NC
	Olive Oil	NC
Alcohols & Water	Glycerol	NC
	Isopropanol	NC
	Ethanol	NC
	Water	NC
Silicone Fluids	Cyclopentasiloxane	SH
	Disiloxane (BELSIL® DM 0.65)	SH
	Dimethicone (BELSIL® DM 1 Plus)	SH
	Dimethicone (BELSIL® DM 5)	SH
	Dimethicone (BELSIL® DM 350)	SH
	Trimethylsiloxyphenyl Dimethicone (BELSIL® PDM)	H

<b>C = Clear (miscible)</b>
<b>SH = Slightly Hazy</b>
<b>H = Hazy</b>
<b>NC = Not Compatible</b>

---

The data presented in this medium are in accordance with the present state of our knowledge but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this medium should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The information provided by us does not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001

WACKER® is a trademark of Wacker Chemie AG. BELSIL® is a trademark of Wacker Chemie AG.

For technical, quality, or product safety questions, please contact:

Wacker Chemie AG  
Hanns-Seidel-Platz 4  
81737 München, Germany  
info.silicones@wacker.com

[www.wacker.com](http://www.wacker.com)