BELSIL® REG 102

CYCLOPENTASILOXANE, DIMETHICONE/VINYLTRIMETHYLSILOXYSILICATE CROSSPOLYMER

Product description

BELSIL® REG 102 elastomer gel is a silicone copolymer network blended with cyclopentasiloxane. It appears as a transparent slightly yellow gel providing a very pleasant sensorial sensation during the application and after use. BELSIL® REG 102 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® REG 102 is easy to distribute on skin and gives a light and silky skin feel. BELSIL® REG 102 has the ability to act as a thickening agent. Evaporation of the volatile silicones leaves a non-tacky film which improves the water resistance of formulations.

Application

BELSIL® REG 102 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® REG 102 is diluted with solvents the viscosity of the product is significantly decreasing and can hence be easily adjusted. The performance properties of BELSIL® REG 102 make it a very versatile ingredient for various skin care, color cosmetic and hair care products. It also can add a cushiony feel to creams, eye gels, foundations, concealers and BB creams. In pressed powder cosmetics it acts as binder. After Evaporation of the solvent, BELSIL® REG 102 provides a substantive hydrophobic film, making it ideal for use in sun care formulations. In lipsticks and foundations, it improves transfer resistance.

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Processing

BELSIL® REG 102 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® REG 102 may apparently increase. However as the viscosity data vary significantly depending on how the gel is stirred, we recommend to thoroughly mix BELSIL® REG 102 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

Typical general characteristics	Inspection Method	Value
Appearance and color		Transparent, slightly yellow gel
Solid content	1 g / 2 h / 150°C	~ 14 %
Flash point	ISO 3679	63 °C
Density at 20 °C, at 1013 hPa	ISO 1183-1 A	0,95 g/cm³
Viscosity, dynamic at 25 °C	DIN 53018	> 75000 mPa.s
INCI name		Cyclopentasiloxane, Dimethicone/Vinyltrimethyl-siloxysilicate Crosspolymer

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

Organic Compatibility BELSIL® REG 102

Agreeability 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
	Oleyl Oleate	NC
	Dicaprylyl Ether	C
	Diethylhexyl Carbonate	C
	Diisobutyl Adipate	NC
UV-Filters	Ethylhexyl Salicylate	NC
	Ethylhexylmethoxy Cinnamate	NC
Triglycerides	Castor Oil	H
	Lanolin Oil	H
	Wheat Germ Oil	NC
	Olive Oil	NC
Alcohols & Water	Propylene Glycol	NC
	Glycerol	NC
	Isopropanol	SH
	Ethanol	NC
	Water	NC
Silicone Fluids	Disiloxane (BELSIL® DM 0.65)	C
	Dimethicone (BELSIL® DM 1 Plus)	C
	Dimethicone (BELSIL® DM 5)	C
	Dimethicone (BELSIL® DM 10)	C
	Trimethylsiloxyphenyl Dimethicone (BELSIL® PDM 20)	SH

C = Clear (miscible)

SH = Slightly Hazy

H = Hazy

NC = Not Compatible

Organic Compatibility BELSIL® REG 102

Agreeability 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	SH
	Decyl Oleate	NC
	Oleyl Oleate	NC
	Dicaprylyl Ether	C
	Diethylhexyl Carbonate	SH
	Diisobutyl Adipate	NC
UV-Filters	Ethylhexyl Salicylate	NC
	Ethylhexylmethoxy Cinnamate	NC
Triglycerides	Castor Oil	H
	Lanolin Oil	H
	Wheat Germ Oil	NC
	Olive Oil	NC
Alcohols & Water	Propylene Glycol	NC
	Glycerol	NC
	Isopropanol	SH
	Ethanol	NC
	Water	NC
Silicone Fluids	Disiloxane (BELSIL® DM 0.65)	C
	Dimethicone (BELSIL® DM 1 Plus)	C
	Dimethicone (BELSIL® DM 5)	C
	Dimethicone (BELSIL® DM 10)	C
	Trimethylsiloxyphenyl Dimethicone (BELSIL® PDM 20)	SH

C = Clear (miscible)

SH = Slightly Hazy

H = Hazy

NC = Not Compatible

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

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

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