

# BELSIL® TMS 803

TRIMETHYLSILOXYSILICATE

## Product description

BELSIL® TMS 803 is the co-hydrolysis product of tetraalkoxysilane (Q unit) and trimethylethoxysilane (M unit). The chemical structure of BELSIL® TMS 803 can be seen as a three-dimensional network of polysilic acid units, which are endblocked with trimethylsilyl groups. Some residual ethoxy and hydroxy functions are present.

BELSIL® TMS 803 is a white powder manufactured in such a way that it is substantially free of aromatic solvents such as toluene. In keeping with its low content of fine dust particles and its uniform particles, BELSIL® TMS 803 exhibits excellent rheological properties (flowability).

BELSIL® TMS 803 can be compounded with polydimethylsiloxanes.

## Application

This highly cross-linked silicone resin is primarily used for its film-forming attributes.

In sunscreen, skincare and color cosmetic applications, the Trimethylsiloxysilicate BELSIL® TMS 803 is an excellent water-resistant additive and helps to hold pigments in place. It prevents agglomeration

and maintains free-flowing characteristics in loose-powder products.

In haircare compositions, the silicone resin provides volume and body, while imparting humidity resistance to the hair.

## 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
Particle size D50		10 µm
INCI name		Trimethylsiloxysilicate
Bulk density	DIN EN ISO 60	250 kg/m³

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

## Additional information

## Solubility

Ingredient	BELSIL® TMS 803	Ingredient	BELSIL® TMS 803
<b>Mineral oils</b>		<b>Alcohols</b>	
Isododecane	✓	Oleyl dodecanol	-
C9-13 isoparaffin	-	Oleyl alcohol	-
Hydrogenated Polydecene	-	Propylene Glycol	-
		Isopropanol	✓
<b>Ester oils</b>		Ethanol	✓
Ethyl acetate	✓	Glycerol	-
C12-15 alkyl benzoate	-	Water	-
Isopropyl myristate	✓		
Decyl oleate	-	<b>Emulsifiers / ethoxylated oils</b>	
Oleyl oleate	-	PEG-75 Lanolin oil	-
Ethylhexyl stearate	p	PEG-7 Glyceryl Cocoate	-
Myristyl lactate, myristyl alcohol	-	PPG-5-Laureth-5	-
Dicaprylyl ether	✓		
		<b>Silicone fluids</b>	
<b>UV-Filters</b>		Cyclopentasiloxane	✓
Ethylhexyl Salicylate	p	Disiloxane (BELSIL® DM 0.65)	✓
		Dimethicone (BELSIL® DM 1 Plus)	✓
<b>Triglycerides</b>		Dimethicone (BELSIL® DM 10)	✓
Castor oil	-	Dimethicone (BELSIL® DM 1000)	✓
Olive oil	-	Trimethylsiloxyphenyl Dimethicone	✓
Wheatgerm oil	-	(BELSIL® PDM 20)	
Lanolin oil	-	Trimethylsiloxyphenyl Dimethicone	-
		(BELSIL® PDM 1000)	

✓ = soluble (&gt; 10%)

p = partially soluble (1 - 10%)

- = insoluble

The data presented in this leaflet 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 leaflet 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 recommendations do 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 products 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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