

# BELSIL® WO 3700



## Silicone Fluids, functional (INCI)

BELSIL® WO 3700 is a non-ionic emulsifier suitable for water in oil (W/O) and water in silicone (W/Si) formulations. BELSIL® WO 3700 is based on a polymeric polydimethylsiloxane which is functionalized with polyether groups as well as with alkyl groups. Due to its special structure, the product ensures a good emulsion stability. BELSIL® WO 3700 appears as an almost colorless medium-viscose liquid. The calculated HLB value (hydrophilic-lipophilic balance) of BELSIL® WO 3700 is approximately 3.

INCI Cetyl PEG/PPG-10/1 Dimethicone



## Technical data

### General Characteristics

Property	Condition	Value	Method
Refractive index	-	1.438	-
Appearance	-	colorless to slightly yellow liquid	-
Density	25 °C   1013 hPa	approx. 0.93 g/cm <sup>3</sup>	not specified
Flash point	-	approx. 130 °C	not specified
Solidification point	1013 hPa	5 °C	Methode
Viscosity, kinematic	25 °C	approx. 2000 mm <sup>2</sup> /s	DIN 51562

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

All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

## Applications

- After-Sun
- Anti-Aging Products
- Eye Make-up
- Face & Body Care
- Make-up
- Make-up Foundation
- Personal Care
- Skin Care
- Sun Care
- Sunscreen

## Application details

BELSIL® WO 3700 was specifically designed as an emulsifier for water-in-oil (W/O) or water-in-silicone (W/Si) products. However, together with suitable co-emulsifiers the product might also be used for the preparation of oil-in-water (O/W) formulations. Using BELSIL® WO 3700 as an emulsifier allows to formulate not only high viscose creams, but also enables stable low-viscous lotions. BELSIL® WO 3700 significantly improves the texture of W/O formulations. Typically W/O emulsions are associated with a heavy and rich skin feel. Using the silicone based BELSIL® WO 3700 improves the spreadability and texture of W/O formulations yielding rather light formulations.

BELSIL® WO 3700 is typically used in skin care products, but is also well-suited for sun care formulations or color cosmetic products such as foundations and concealers.

### Processing:

BELSIL® WO 3700 is typically added to the oil phase. The water phase is incorporated slowly into the oil phase, while slow homogenization with Ultra Turrax (max. 4000 rpm). Thorough, but not too intensive homogenization is required. Very high energy input frequently causes the formation of highly viscous, metastable secondary structures which break down on storage. The final product should be well homogenized until it reaches room temperature. BELSIL® WO 3700 can be used for hot and cold emulsification processes

## Packaging and storage

### 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>.

## QR Code BELSIL® WO 3700



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

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