

# Bluesil™ SP 3304

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## Description

**Bluesil™ SP 3304** is a non-hydrolysable polyether modified polydimethylsiloxane.

## Examples of Applications

**Bluesil™ SP 3304** reduces surface tension to provide excellent wetting and promote spreading by forming a continuous monolayer across even hard-to-wet surfaces.

As a result of these properties, **Bluesil™ SP 3304** can be beneficially employed in broad ranging applications:

- Coatings and Inks

**Bluesil™ SP 3304** may facilitate the dispersion of pigments and wets critical substrates to improve the flow and levelling of water-based paints and inks.

The low coefficient of friction of the silicone backbone of **Bluesil™ SP 3304** provides mar and scratch resistance.

The organo-compatibility of **Bluesil™ SP 3304** means that it does not negatively affect inter-coat adhesion.

- Foam control

**Bluesil™ SP 3304** acts as an antifoam in aqueous systems when used at temperatures above its Cloud Point.

The antifoaming activity of emulsified systems is commonly boosted by the addition of **Bluesil™ SP 3304**.

The reduction of entrained air is promoted by the de-aeration activity of **BLUESIL SP 3304** thanks to its specific composition and surface activity.

**Bluesil™ SP 3304** may be used as a foam control agent in non-aqueous systems that are prone to contamination by water.

### • Release and lubrication

**Bluesil™ SP 3304** is an efficient lubricant, particularly between plastic or rubber and metal, which can be conveniently applied in aqueous dispersion.

Thermoplastics and thermosets have smooth surfaces after demoulding using **Bluesil™ SP 3304** thanks to its ability to cover surfaces uniformly and benefiting from its foam control activity when applied in aqueous formulation.

The hydro- and organo-compatibility of **Bluesil™ SP 3304** makes molds easy to clean and leaves molded surfaces over-coatable for painting, gluing, etc.

### • Maintenance and cleaning

**Bluesil™ SP 3304** is beneficial to maintenance products like cleaners and polishes by helping to homogenise their formulations and by promoting their intimate and uniform coverage of treated surfaces.

The wetting of surfaces, combined with its hydro-compatibility, enables **Bluesil™ SP 3304** to be used as an anti-fog and, in the presence of humidity, its hygroscopicity boosts the anti-static benefit of its lubricant action.

Surfaces treated with **Bluesil™ SP 3304** have a non-sticky, non-oily touch.

### • Fabric Care

**Bluesil™ SP 3304** is effectively a post-wash fabric conditioner, imparting easy ironing by lubricating between the fabric and the metal of the iron.

Via inter-fibre lubrication, **Bluesil™ SP 3304** may improve the drape of clothes and, being hydrophilic, their comfort to wear.

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**Bluesil™ SP 3304** must be applied to largely dry fabrics post-wash, not during the wash, rinse or conditioning cycles in machines or during hand washing.

## Advantages

- Non-ionic surfactant with low surface tension.
- Wetting and spreading agent.
- Foam control agent.
- Lubricant for rubber and plastic.
- Release agent.
- Hydrophilic.
- Anti-stat.
- Anti-fog.
- Anti-tack agent.
- Soluble in water, alcoholic and hydroalcoholic solutions.
- Organic compatibility.
- Hydrolytically and chemically stable.

## Characteristics

| <i>Properties</i>                                | <b>BLUESIL SP 3304</b> |
|--|------------------------|
| Appearance                                       | clear liquid           |
| Colour   | yellowish              |
| Viscosity (at 25°C, mm <sup>2</sup> /s, approx.) | 1 700                  |
| Specific gravity (at 25 °C, approx.)             | 1.03                   |
| Cloud point (°C, approx.)                        | 40                     |

## Processing

**Bluesil™ SP 3304** is completely water soluble at temperatures below its cloud point. At higher temperatures, the product will 'cloud-out' in a temperature reversible manner.

**Bluesil™ SP 3304** is generally used in concentrations that range from tenths to single-digits % depending on the application.

## Packaging

**Bluesil™ SP 3304** is supplied in 200 kg drums.

## Storage and shelf life

When stored in its original packaging at a temperature of between 0°C and + 50°C,

**Bluesil™ SP 3304** may be stored for up to 24 months from its date of manufacture.

Comply with the storage instructions and expiry date marked on the packaging.

Beyond this date, Elkem Silicones no longer guarantees that the product meets the sales specifications.

## Safety

Consult the Safety Data Sheet for **Bluesil™ SP 3304**.

Visit our website [www.silicones.elkem.com](http://www.silicones.elkem.com)

# Bluesil™ SP 3304

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