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## DESCRIPTION

**Silsurf<sup>®</sup> Q25315-O Polyether MQ Resin** is a ultra-highly branched Silicone Polyether. **Silsurf Q25315-O Polyether MQ Resin** has had some of the methyl groups of **Silmer<sup>®</sup> MQ Resins** replaced with polyalkyleneoxide chains to provide increased solubility and surface tension reducing properties. A simplified structure is shown to the right where R represents the polyether chain.



**Silmer MQ Resins** are the kinetic reaction products of silicates with trimethyl siloxy groups which generates a silicon-based, cross-linked network having trimethyl silyl functionality on the surface. These types of silicones are often referred to as "MQ resins" because they are built of a network of tetrafunctional silicon atoms (Q group – silicon surrounded by four oxygen groups) end capped with mono functional silicon (M group – silicon with one oxygen group and three alkyls).

## **TYPICAL PROPERTIES**

Appearance	Clear Liquid
Color, Gardner	2
Viscosity, cSt	50
Active Content %	100
Water solubility 1%/ 10%	Soluble/Soluble

#### USES AND APPLICATIONS

**Silsurf Q25315-O Polyether MQ Resin** is miscible with most hydrocarbon oils and soluble in water. **Silsurf Q25315-O Polyether MQ Resin** reduces the surface tension of water and oils in which it is dissolved.

**Silsurf Q25315-O Polyether MQ Resin** is useful for stabilizing emulsions of silicone oils and silicone based antifoam compounds.

The complex, hindered ultra-high branched silicone backbone makes this product significantly more stable to hydrolysis, especially base catalysed hydrolysis, of the silicone. Therefore **Silsurf Q25315-O Polyether MQ Resin** is especially durable in high pH environments like pulp and paper, laundry and textile baths and low pH environments like metal working fluids.

Typical use levels of **Silsurf Q25315-O Polyether MQ Resin** are up to 1%.

Industrial uses for Silsurf Q25315-O Polyether MQ Resin.

- Pulp & Paper: Dispersant in defoamers, durability improver, foam control supplement
- Textile: Component of defoamers for durability and compatibilization additive in fibre spin-finish, texturizing oil, knitting oil, warp sizing
- Coatings: Active in water based defoamers, unique wetting agent,
- Leather Finishing: lubricant, softness

## <u>SAFETY</u>

Before handling, read the Material Safety Data Sheet and container label for safe use, physical and health hazard information.

THIS MATERIAL IS NOT FOR MEDICAL OR DRUG USE.

# STORAGE AND SHELF LIFE

When stored in the original, unopened containers between 10 and 40<sup>o</sup>C, **Silmer MQ resins** have a shelf life of at least 24 months from date of manufacture.

#### **PACKAGING**

Silmer MQ Resins are available in 20kg and 200kg containers.

#### LEGAL DISCLAIMER

Siltech Corporation believes that the information in this technical data sheet is an accurate description of the typical uses of the product. Siltech Corporation, however, disclaims any liability for incidental or consequential damages, which may result from the use of the product that are beyond its control. Therefore, it is the user's responsibility to thoroughly test the product in their particular application to determine its performance, efficacy and safety. Nothing contained herein is to be considered as permission or a recommendation to infringe any patent or any other intellectual property right.

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