

POWSIL™-59912 High MW Block Silicone Softener

INTRODUCTION

POWSIL™-59912 is a high molecular weight block copolymer silicone active substance designed for textile finishing. It provides core softness, silky and full hand feel, good drape, and hydrophilicity to finished fabrics.

FEATURES & BENEFITS

- High molecular weight block copolymer silicone structure
- Provides core softness, silky and full hand feel
- Good hydrophilicity on finished fabrics
- Provides elasticity and shape recovery
- Hindered amine functionality with little or no yellowing
- Compatible with durable press resins, catalysts and OBAs
- Suitable for dyeable and re-dyeable processes
- Easily emulsified using conventional emulsifiers

PHYSICAL PROPERTIES

Appearance	Amber to yellowish transparent liquid
Solid Contents (wt %)	Min.92.0
Viscosity (25°C, cP)	1,000-15,000
Density (25°C, g/cm ³)	0.98
Ionicity	Nonionic

Note: These values are typical and are not intended for use as specifications

APPLICATIONS

POWSIL™-59912 is a high solid silicone oil and must be emulsified before use. Emulsions containing 10-20% silicone active content are suitable for textile softening to impart core softness, silky hand feel, and good drape.

APPLICATION GUIDE

Guide for Preparation of a Micro-Emulsion from POWSIL™-59912

POWSIL™-59912	10.0 wt%
TDA-6	1.0 wt%
TDA-12	3.0 wt%
Butylcarbitol	2.0 wt%
Acetic Acid	0.2 wt%
DI Water	Top up to 100
Preservative (if required)	As needed

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TDA-6: Tridecyl Alcohol Ethoxylated with 6EO

TDA-12: Tridecyl Alcohol Ethoxylated with 12EO

Procedure:

1. Charge POWSIL™-59912, emulsifiers (TDA-6, TDA-12) and butylcarbitol into the mixer, then stir at approximately 350 rpm for 20 minutes until fully homogeneous.
2. Pre-dissolve acetic acid in water, then slowly add the aqueous solution into the silicone/emulsifier mixture under stirring. Avoid introducing excessive air during mixing.
3. Filter before packing, if necessary.

The recommended levels can be used for orientation. Optimal levels are determined through a series of laboratory tests.

Padding Process

Dosage (10% emulsion):	5 - 30 g/L
pH:	5.0 - 7.0
Drying:	120 - 170°C x 1 - 3 min

Exhaustion Process

Dosage (10% emulsion):	0.5 - 3.0% (o.w.f.)
Liquor ratio:	1:10 - 1:20
pH:	5.0 - 7.0
Temperature:	Ambient 10 - 30 min
Drying:	100 - 170°C x 1 - 3 min

Garment Washing

Dosage (10% emulsion):	1.0 - 3.0% (o.w.f.)
Time:	30 - 60 min
Drying:	Tumble drying as usual

Stripping (if needed)

NaOH:	5 g/L
LABS (30%):	2.0 - 5.0%

POWSIL™-59912 can be stripped from fabrics. Add water and NaOH into the treatment bath, heat to 100°C for 60 minutes, then rinse with acidic water followed by pure water.

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PACKING

POWSIL™-59912 is available in 120Kg Drum or 950Kg IBC.

STORAGE

In the unopened original container at room temperature POWSIL™-59912 has a shelf life of one year in a dry and cool place.

HANDLING

This document does not contain the product safety information required for safe use. Before handling, please refer to the product and safety data sheets, as well as container labels, for information on safe usage, physical hazards, and health risks. Safety Data Sheet is available on the website, from the distributor, or by contacting SiSiB customer service.

NOTE

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

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