

# POWSIL™-59480

## Self-Dispersed Silicone Softener

### INTRODUCTION

POWSIL™-59480 is a new generation textile softener. It is a self-dispersed silicone fluid and developed to solve issues such as thermal migration, oil-spots, oiling/greasy feel & color change which are common problems for traditional amino-silicone.

### BENEFITS

- Provides super silky hand feel like macro-emulsions of amino-silicone, no oil-spots;
- Self-dispersion silicone oil and can be readily diluted to any grades without oil-spots in processing;
- Cost effective even at very low dosage (1-5g/l);
- Provides a high level of natural softness to synthetics and their blends with natural fibers;
- Imparts excellent fiber elasticity and shape recovery;
- Hindered amine function & slight or no yellowing;
- Excellent color fastness to washing;
- Excellent stability under most finishing conditions, including jet/overflow;
- Can be used with anti-wrinkle (durable press) resins, catalysts and optionally OBA's;
- Re-dyeable & over dyeable;

### TYPICAL PHYSICAL PROPERTIES

Appearance	Light yellowish transparent liquid
Amine Value (mmol/g)	0.065~0.085
Solid Content (%)	58.0~62.0
Viscosity (25°C, cps)	<2500
pH (25°C)	4.0-6.0
Flash Point	>90°C
Diluents	Water
Density (25°C)	1.046

### APPLICATION

POWSIL™-59480 can be as a softener and a slick enhancer which be used in textile fabric finishing or yarn finishing.

POWSIL™-59480 can be used as received or pre-diluted with water before applying.

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Optimum usages are dependent on the required softness of the different types of fabric and yarn.

### **An example of a formulation & procedures of dilution of POWSIL™-59480**

#### 1. Formulation:

POWSIL™-59480:	30%
Water:	69.9%
Acetic acid (optional):	0.1%

#### 2. Procedures:

- 1) Charge all water and acetic acid (optional) into a mixing tank, and then start to stir 50-100 rpm for 5 min.
- 2) Slowly Add POWSIL™-59480 into above mixing tank under stirring, continue to stir at 50-100 rpm for 30 min
- 3) Stop stirring and stand for a while for foam reducing.
- 4) Filter above emulsion and drum.
- 5) A light milky emulsion is obtained.

### **Typical formulations for fishing fabric;.**

#### 1. Pad-dry-cure process

Dosage:	1-10g/l for light fabric or 10-20g/l of POWSIL™-59480 as received for heavy fabric
pH:	5.0-7.0
Temp.:	Ambient temperature
Dry/Cure:	120-170 °C for 1-3min

#### 2. Exhaustion process

Dosage:	0.2-1.0% (o.w.f.) on light fabric & 1.0-2.0% on heavy fabric
Liquor ratio:	1/10-1/20
pH:	5.0-7.0
Temp.:	Ambient temperature
Time:	10-30 min
Spinning & Drying:	100-170 °C for 1-3 min

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### 3. Garment washing process

Dosage:	1.0-3.0% on the weight of garment
Temp.:	Ambient temperature
Time:	30-60 min
Spinning & Drying:	100-130 °C for 3-5 min

#### Guides of Stripping:

POWSIL™-59480 can be stripped off fabric.

The stripping formulation is as follows:

Na <sub>2</sub> CO <sub>3</sub> :	5g/L
Detergent:	2-5%

Add water and Na<sub>2</sub>CO<sub>3</sub> and detergent onto fabric tank and then heat to 100°C for 6 min. Then rinse fabric with acidic water and water.

## PACKING AND STORAGE

To ensure that the product quality is maintained, the container should be tightly sealed when not in use. It should be stored at normal room temperature, preventing prolonged exposure to extreme heat and cold conditions, which may cause product separation. POWSIL-59480 tends to be sediment on bottom during storage period. If the product is separated, stir the contents to homogeneous. If the product is frozen, thaw it at warm condition and stir after thawed

## NOTES

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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Please send all technical questions concerning quality and product safety to: support@SiSiB.com.