

POWSIL™-99580

Silicone Softener

INTRODUCTION

POWSIL™ 99580 is a hydrophilic textile softener which contains revolutionary silicone molecules that provides consistent hydrophilicity to all types of textile fibers or fabrics at lower use than other silicone softeners.

BENEFITS

- Provides instant & consistent water absorption to various fabrics;
- Imparts soft & smooth hand feel;
- Deeply penetrates into fibers and impart bulkiness;
- Forms water dispersible micro-emulsions;
- Easily dilute to any grade without additional emulsifiers;
- Very stable & non oil-spots if used in ordinary textile finish process;
- Excellent affinity with all types of textile;
- Excellent fiber elasticity and shape recovery;
- Durable softness to laundering;
- Imparts low-yellowing to various fabrics;
- Especially suitable for natural fibers;
- Re-dyeable & over-dyeable.

TYPICAL PHYSICAL PROPERTIES

Appearance	Light yellowish transparent liquid
Viscosity (25°C, cst)	5000-20000
Diluents	Water+ Solvents
Solid Contents (%)	89.0-93.0
Density (25°C)	0.993
Ionic	Nonionic to weak cationic

APPLICATIONS

POWSIL™ 99580 can be commonly applied in textile finish process. Further dilution with water can obtain a bluish micro-emulsion with lower silicone actives.

Micro-emulsion for Silicone actives

1) Formulation-1

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Ingredients	% wt
POWSIL™ 99580	25.0
Butylcarbitol	9.0
Acetic Acid	0.1-0.15
Water	66.0
Preservative if required	-

Procedures of Mixing:

- 1) Add POWSIL™ 99580, butylcarbitol and acetic acid into a mixing tank and then stir for 15 min;
- 2) Add water slowly under stirring;
- 3) A bluish clear emulsion will be obtained.

2) Formulation-2

Ingredients	% wt
POWSIL™ 99580	20.0
TDE-6 or AEO-6	3.2
TDA-9 or AEO-9	3.2
Butylcarbitol	4.10
Acetic Acid	0.1-0.15
Water	69.35
Preservative if required	-

- TDE-6: Tridecyl Alcohol 6EO ethoxylated
- AEO-6: Fatty alcohol ethoxylated with 6 EO

Procedure of Mixing:

- 1) Charge POWSIL™ 99580, emulsifiers and butylcarbitol to a mixer and then stir it at moderate speed for ~10 min till fully homogeneous.
- 2) Premix acetic acid and water.
- 3) Slowly add the acidic water while continuously stirring above content. Stop charging the acidic water occasionally to ensure the water is well taken into the grease.
- 4) A clear and bluish micro-emulsion should be obtained at end of this procedure
- 5) Filter before packing, if necessary.

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The diluted POWSIL™ 99580 can be applied to fabric. Optimum treatments are dependent on the required softness of the fabric and yarn after dyeing and rinsing.

1. Pad-dry-cure process

Dosage:	10-20g/l for light fabric or 25-50g/l for heavy fabric
pH:	5.0-7.0
Temp.:	Ambient temperature
Dry/Cure:	120-170 °C for 1-3 min

2. Exhaustion process

Dosage:	1.0-2.0% (o. w.f.) on light fabric & 2.5-5.0% on heavy fabric
Liquor ratio:	1/10~1/20
pH:	5.0-7.0
temperature:	Ambient
Time:	10-30 min
Spinning & Drying:	100-170 °C for 1-3 min

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

Stripping:

POWSIL™ 99580 can be stripped off fabric. The stripping formulation is as follows:

NaOH	5g/l
LABS(30%):	2-5%

Add water and NaOH onto fabric tank and then heat to 100 °C for 60 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. If the

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product is separated, stir the contents. 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.