

POWSIL™-63001

Silicone Softener

INTRODUCTION

POWSIL™-63001 is especially designed to deliver a greasy, moisturized and silky hand feel to most types of fabrics at lower use level than traditional silicone softeners.

POWSIL™-63001 can impart elastomeric property to the most fabric based on its novel functional silicone copolymer.

BENEFITS

- Imparts natural greasy, moisturized, bulk and silky softness
- Excellent fiber elasticity and shape recovery
- Provides excellent dispersion/spreading and penetration properties on fibers
- Superiorly durable softness to laundering
- Shear stable formulations
- Easy to make micro-emulsions
- Outstandingly exhaustible to natural fibers
- Suitable for padding and exhaustion finish process
- Non or less oil spots when applying emulsions on fabric
- Excellent affinity on all types of textile
- Re-dyeable & over dyeable

TYPICAL PHYSICAL PROPERTIES

Appearance	Transparent liquid
Solid content (wt%)	86-90
Viscosity (25°C, cps)	10000-30000
pH (25°C)	5.0-7.0
Flash Point (°C)	>90
Diluents	Emulsifiers and Water
Gravity (25°C)	0.9806
Ionic	Slightly cationic
D4 (Octamethylcyclotetrasiloxane)	<850 ppm
D5 (Decamethylcyclopentasiloxane)	<1,000 ppm
D6 (Dodecamethylcyclohexasiloxane)	<1.000 ppm

APPLICATIONS

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POWSIL™-63001 is a silicone oil that requires emulsification before application in the textile finishing process, rather than being applied directly to fabrics. Emulsifying POWSIL™-63001 is notably easier than emulsifying other silicone oil typically used in textile softeners.

Formulation

Composition	% wt
POWSIL™-63001	25
TDE-3 or AEO-3*	~3.5
TDE-12 or AEO-12	~6.5
Butylcarbitol	0~3.5
Acetic Acid	~0.8
Water	~100
Preservative if required	~

*-TDE-3: Tridecyl Alcohol 3EO ethoxylated

- AEO-3: Fatty alcohol ethoxylated with 3 EO

-TDE-12: Tridecyl Alcohol 12EO ethoxylated

- AEO12: Fatty alcohol ethoxylated with 12 EO

2) Procedures:

1) Stir POWSIL™-63001 content in container to make it homogeneous before taking out for use;

2) Charge POWSIL™-63001, butylcarbitol and emulsifiers into a mixer, and then stir the contents at moderate speed for 10-30 min till fully homogeneous;

3) Premix acetic acid and water;

4) Slowly add the acidic water into above content;

5) Continue to stir about 10-30 min after all additions;

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6) Clear micro-emulsion should be obtained at the end of this procedure;

7) Filter before packing, if necessary.

The Example of Application of 25% POWSIL™-63001:

25% POWSIL™-63001 can be used as received or pre-diluted with water before application. The optimal treatment depends on the desired softness of the fabric and yarn after dyeing and finishing.

1. Pad-dry-cure process

Dosage	10-20g/l for light fabric or 25-40g/l for heavy fabric
pH	5.0-7.0
Temperature	Ambient temperature
Dry/Cure	120-170°C for 1-3 min

2. Exhaustion process

Dosage	1.0-3.0% on the weight of fabric
Liquor ratio	1/10-1/20
pH	5.0-7.0
Temperature	Ambient temperature
Time	10-30 min
Drying	100-130°C for 3-5 min

3. Garment washing process

Dosage	1.0-3.0% on the weight of garment
pH	Ambient temperature
Temperature	10-30 min
Drying	100-130°C for 3-5 min

PACKING AND STORAGE

POWSIL™-63001 is packaged in net weight 120Kg drum or 1000Kg IBC tote.

In the original unopened packaging, POWSIL™-63001 has a shelf life of 9 months at normal room temperature.

NOTES

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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: silanes@SiSiB.com.