

# POWSIL™-59107

*Silicone Softener*

## INTRODUCTION

POWSIL-59107 is an innovative textile softener, especially designed to deliver a hydrophilic, voluminous and silky natural hand feel to most types of fabrics at lower use level than traditional silicone softeners.

POWSIL-59107 is based on novel linear block-copolymer platform comprising polyether & quaternary functional silicone copolymer which not only coats the fiber surface, delivering on unusual full and rich hand-feels, but also penetrates deeply and homogeneously into the interior of the natural fibers, modifying every single fiber and therefore enhancing the overall fabric performance.

## BENEFITS

- Linear block copolymer structure that provides excellent dispersion/spreading & penetration properties on fibers;
- Imparts natural voluminous and silky softness as opposed to a thin, greasy & slick hand feeling as seen from traditional amino silicone;
- Excellent fiber elasticity and shape recovery;
- Deeply penetrates into fibers to impart internal softness;
- Superiorly durable softness to laundering;
- Less fabric yellowing;
- Good hydrophilicity;
- Shear stable formulations;
- Easy to make microemulsions;
- Outstandingly exhaustible to particularly natural fibers;
- Suitable for both 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

Property	Value
Physical Form	Pourable liquid
Appearance	Transparent
Solid Contents (wt%)	~85
D4, D5, D6 (wt%)(respective)	<0.1

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Viscosity (25°C, cps)	3000-10000
PH (25°C)	5.0-7.0
Flash Point (Open cup)	>100°C
Diluents	Emulsifiers & Water
Gravity ( 25°C)	0.993
Ionic	Slightly cationic

### APPLICATION

POWSIL-59107 is silicone oil that cannot be applied directly on fabrics. It should be emulsified before applying in the textile finish process. However, emulsifying it is much easier than emulsifying other silicone fluids conventionally used in the application of textile softener. POWSIL-59107 can be readily emulsified using normal equipment and procedure.

#### Micro-emulsion for 24.0% of POWSIL-59107 Formulation

Composition	% wt
POWSIL-59107	24.0
TDE-6 or AEO-6	6.0
Acetic Acid	0.3
Water	69.7

#### Micro-emulsion for 38.0% of POWSIL-59107 Formulation

Composition	% wt
POWSIL-59107	38.0
TDE-6	10.0
TDE-12	2.2
Butyl Carbitol	2.0
Water	46.8
Acetic Acid	1.0

#### The Example of Application of 24.0% POWSIL-59107 Microemulsion:

24.0% of POWSIL-59107 can be used as received or pre-diluted with water before applying. Optimum treatments are dependent on the required softness of the fabric and yarn after dyeing and finishing.

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

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Dosage	10-20g/L for light fabric or 25-40g/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	1.0-3.0% on the weight of fabric
Liquor ratio	1/10-1/20
pH	5.0-7.0
Temp.	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
Temp.	Ambient temperature
Duration	10-30 min
Drying	100-130°C for 3-5 min

## 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-59107 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.

POWSIL-59107 is packaged in net weight 190Kg plastic drum. POWSIL-59107 has a shelf life of 9 months under room temperature and hermetic condition without exposure to sunlight.

## 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.

We specifically disclaim any other express or implied warranty of fitness for a particular

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Please send all technical questions concerning quality and product safety to: [support@SiSiB.com](mailto:support@SiSiB.com).