

# POWSIL™-59257

## Hydrophilic Silicone Softener

### INTRODUCTION

POWSIL™-59257 is a new polyether silicone terpolymer which can impart a consistent hydrophilicity for all types of textile fibers or fabrics compared to other silicone softeners. POWSIL™-59257 provides a soft and smooth feel to various fabrics. It is very stable and will not generate oil spots in the general textile finishing process.

### BENEFITS

- Provides fast & consistent water absorption on various fibers & fabric;
- Imparts soft & smooth hand feel;
- Non yellowing as epoxy modified;
- Additional emulsifiers free but self-dispersed in water and alcohols;
- Can be diluted with water to any grade without additional emulsifiers;
- Very stable & non oil-spots if used in general textile finish process;
- Excellent affinity with all types of textile;
- Excellent fiber elasticity and shape recovery;
- Durable softness to laundering if catalyst is used;
- Doesn't interfere with the oil release properties of fabrics treated with fluorocarbon;
- Redyeable & over dyeable.

### TYPICAL PHYSICAL PROPERTIES

Appearance	Colorless to yellowish Liquid
Active Contents (wt%)	>95
D4, D5, D6 (ppm, each)	<1000
pH (1% aqueous)	6.0-8.0
Solubility in water	Soluble
Density ( 25/25°C)	1.049
Refractive Index (25°C)	1.4474
Ionic	Nonionic

### APPLICATION

POWSIL™-59257 can be directly used as received or can be pre-diluted with water only. Followings are guide formulations for different silicone active content emulsions that can be generally applied in textile finish process.

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### Potential Applications:

1. Fast hydrophilic property to all kind of fabrics or fibers, or some nonwoven;
2. Hydrophilic enhancer to be co-applied with other softeners, such as fatty acid flakes, amino-silicone;
3. Co-emulsifiers

### Micro-emulsion for 23.0% silicone actives

#### 1. Formulation

Composition	% wt
POWSIL™-59257:	30%
Water:	70%
Preservative (if required)	~

#### 2. Procedure

- 1) Charge water at first and then start to stir;
- 2) Slowly add POWSIL™-59257 while continuously stirring;
- 3) Clear micro-emulsion should be obtained at end of this procedure;
- 4) Filter before packing, if necessary.

The diluted POWSIL™-59257 can be applied to fabric. The optimum treatments are dependent on the required softness of the fabric and yarn after dyeing and finishing.

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

Dosage:	20~30g/l for light fabric or 30~50g/l for heavy fabric
pH:	5.0~7.0
Temp.:	Ambient temperature
Dry/Cure:	120~170 °C for 1~3min

#### 2. Exhaustion process

Dosage:	2.0%~3.0% (o. w. f.) on light fabric 3.0%~5.0% 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

### Stripping:

POWSIL™-59257 can be stripped off fabric. The stripping formulation is as follows:

NaOH:	5g/L
LDBS (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

POWSIL™-59257 is supplied in 120Kg plastic drum.

In the unopened original container POWSIL™-59257 has a shelf life of one year in a dry and cool place.

## 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](mailto:support@SiSiB.com).