

# POWSIL™-50257

## Silicone Softener

### INTRODUCTION

POWSIL™-50257 is a polyether silicone terpolymer that provides consistent hydrophilicity to all types of textile fibers and fabrics. It imparts a soft, slick hand feel while remaining stable during the textile finishing process without causing oil spots.

### BENEFITS

- Non yellowing as epoxy modified;
- Imparts soft & smooth hand feel;
- Provides instant & consistent water absorption on various fibers & fabric;
- No extra emulsifiers included but self-dispersed in water and alcohols;
- Can be diluted with water to any grade without additional emulsifies;
- 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 if catalyst is used;
- Doesn't interfere with the soil release properties of fabrics treated with fluorocarbon;
- Redyeable & over dyeable.

### TYPICAL PHYSICAL PROPERTIES

Appearance	Colorless to yellowish viscous liquid
Active Contents (wt%)	Min. 95
D4, D5, D6 (ppm, each)	Max.1000
pH (1% aq)	6.0-8.0
Solubility in water	Soluble
Density (25/25°C)	1.049
Refractive Index (25°C)	1.4474
Ionic	Nonionic

### APPLICATIONS

POWSIL™-50257 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 commonly applied in textile finish process.

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### 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

### Formulation:

Composition	% wt
POWSIL™ 50257	30.0
Water	70.0
Preservative if required	-

### Procedures:

1. Charge water at first and then start to stir;
2. Slowly add POWSIL™-50257 while continuously stirring;
3. Clear micro-emulsion will be obtained at end of this procedure;
4. Filter before packing, if necessary.

The diluted POWSIL™-50257 can be applied to fabric. The optimum treatments are dependent on the required softness of the fabric and yarn after dyeing and finishing.

### Pad-dry-cure process

Dosage	20 - 30g/l for light fabric or 30 - 50g/l for heavy fabric
pH	5.0 - 7.0
Temperature	Ambient
Dry/Cure	120 - 170°C for 1 - 3 min

### 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

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pH	5.0 - 7.0
Temperature	Ambient
Time	10 - 30 min
Spinning & Drying	100 - 170°C for 1 - 3 min

### Garment washing process

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

### Stripping:

POWSIL™-50257 can be stripped off fabric. The stripping formulation is as follows:

NaOH	5g/l
LDBS(30% Sodium linear-Dodecylbenzenesulfonate)	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™-50257 is supplied in 1000Kg IBC Tote.

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 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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damages.

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

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