

POWSIL™-59930

Silicone Softener

INTRODUCTION

POWSIL-59930 is a novel hydrophilic silicone fluid, linear block copolymer comprising polyether and quaternary functionality.

POWSIL-59930 is 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-59930 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

- Excellent dispersion/spreading & penetration properties on fibers;
- Excellent fiber elasticity and shape recovery;
- Excellent affinity on all types of textile;
- Imparts natural voluminous and silky softness as opposed to a thin, greasy & slick hand feeling as seen from traditional amino silicone;
- 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;
- Re-dyeable & over dyeable.

TYPICAL PHYSICAL PROPERTIES

Property	Value
Physical Form	Pourable liquid
Appearance	Transparent and Yellowish
Silicone Active Contents (wt%)	88~91

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Viscosity (25°C, cP)	5000-12000
Diluents	Emulsifiers & Water
Ionic	Slightly cationic
D4, D5, D6 (ppm, each)	<1000
Total of D4+D5+D6 (ppm)	<2000

APPLICATION

POWSIL-59930 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-59930 can be readily emulsified using normal equipment and procedure.

Micro-emulsion for 23.5% of POWSIL-59930

Formulation

Composition	% wt
POWSIL-59930	23.5
TDE-6 or AEO-6	6.0
TDE-9 or AEO-9	6.0
Acetic Acid	0.3
Water-1	30.0
Water-2	34.2
Preservative if required	~

The Example of Application of 23.5% POWSIL-59930 Microemulsion:

23.5% of POWSIL-59930 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

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

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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
Duratio	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-59930 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-59930 is packaged in net weight 190Kg plastic drum. POWSIL-59930 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.

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Please send all technical questions concerning quality and product safety to: support@SiSiB.com.