

POWSIL™-59108 Hydrophilic Silicone Softener

INTRODUCTION

POWSIL™-59108 is linear block copolymer comprising polyether and quaternary functionality, which is designed to provide various fabrics with enhanced softness, fullness, and a naturally silky hand feel, even at lower usage levels.

POWSIL™-59108 enhances the hand feel of the fabric and boosts its overall performance, making it more hydrophilic, comfortable, and premium.

BENEFITS / EFFECTS

- Greasy and slippery, natural voluminous and silky softness hand feeling
- Excellent fiber elasticity and shape recovery
- Non or less oil spots when applying emulsions on fabric
- Deep fiber penetration for internal softness
- Easy to make various microemulsions
- High natural fiber exhaustivity
- Durable softness to laundering
- Reduces fabric yellowing
- Re-dyeable and over-dyeable

PHYSICAL PROPERTIES

Appearance	Yellowish Clear Liquid
Density (25°C, g/ml)	0.976
Viscosity (25°C, cP)	2000-10000
Solid Content (%)	~90
pH (25°C)	5.0-7.0
Ionicity	Slightly cationic

APPLICATIONS

POWSIL™-59108 is silicone oil that cannot be applied directly to fabrics. It needs to be emulsified before use in the textile finishing process and can be easily emulsified using standard equipment and procedures.

GUIDE FORMULATION

Composition	% wt
POWSIL™-59108	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

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Preservative if required	~
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EMULSIFICATION

- Stir the POWSIL™-59108 evenly in the drum before use.
- Add POWSIL™-59108 and emulsifiers into a mixer, then stir at a moderate speed for about 10 minutes until fully mixed.
- Add Water-1 all at once and continue stirring at 300-600 rpm for 30 minutes (Water-1 must be added in one go to prevent the formation of a hard gel).
- Add Water-2 at a moderate speed, followed by acidic water, and continue stirring at 300-500 rpm for 20 minutes.
- A clear micro-emulsion with some foam will be obtained at end of this procedure.
- If needed, filter the mixture before packing.

APPLICATION GUIDE

23.5% of POWSIL™-59108 can be used as received or pre-diluted with water before applying. The recommended levels can be used for orientation. Optimal levels are determined through a series of laboratory tests.

Padding Process

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

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
Time:	10 ~ 30 min
Drying:	100 ~ 130°C for 3~5 min

Garment Washing

Dosage:	1.0 ~ 3.0% on the weight of garment
Temperature:	Ambient
Time:	10 ~ 30 min
Drying:	100 ~ 130°C for 3~5 min

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PACKING

POWSIL™-59108 is packaged in net weight 120Kg plastic drum.

STORAGE

POWSIL™-59108 has a shelf life of 9 months when stored in its unopened original container at below 40°C in a dry and cool place. While storage beyond the recommended shelf life does not necessarily render the product unusable, it is important to check the product's properties for the intended use to ensure quality and performance, especially for quality assurance purposes.

HANDLING

This document does not contain the product safety information required for safe use. Before handling, please refer to the product and safety data sheets, as well as container labels, for information on safe usage, physical hazards, and health risks. Safety Data Sheet is available on the website, from the distributor, or by contacting SiSiB customer service.

NOTE

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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