

TetraSil SI40

TetraSil SI40 textile softener is a self-cross-linkable silicone emulsion of an amino-functional silicone polymer in water. This product cures to an elastomeric film without the need for a catalyst.

TetraSil SI40 textile softener is manufactured without alkyl phenol-based chemicals (APEO).

Key Features and Typical Benefits

- Forms a film as soon as the water evaporates
- Outstanding slickness along with soft hand-feel
- Exceptional stretch recovery and bouncy hand-feel to all types of fabrics
- Minimizes wrinkles on fabrics
- Moderate water repellent
- Good shear stability
- Typically economical to use
- Produced without alkyl phenol-based chemicals (APEO)

Potential Applications

- Virtually any type of fabric requiring excellent smoothness and bouncy softness
- Mercerized cotton knits
- Blends/Cotton
- Fiber and thread lubricants
- Improved softness in wrinkle-free finish

Typical Physical Properties

Property	Value
Appearance	Milky white liquid
Solid Content (%)	20
Viscosity, 25 °C, #3/6	< 50 cPs
Specific Gravity, 25 °C (77 °F)	1.0
Ionic Character	Non-ionic
Suitable Dilutant	Water

General Instructions for Use

TetraSil SI40 textile softener prior to adding to the textile finish bath.

The optimum dosage depends on the required softness, type of fabric and fabric finish conditions, but the following are common initial rates.

1. *Pad-dry-cure continuous process*

Dosage	:	10 ~ 30 g/L
pH	:	6.0 ~ 8.0
Temperature	:	Ambient
Pick-up	:	65 ~ 100%
Drying	:	100 ~ 130 °C x 1 - 3 minutes

2. *Exhaustion process*

Dosage	:	1.0 ~ 3.0% on the
weight of fabric	Liquor Ratio	: 1/10
		~ 1/20
pH	:	6.0 ~ 8.0
Temperature	:	20 ~ 40 °C
Time	:	15 ~ 30 minutes
Drying	:	100 ~ 120 °C

Cure Properties

Upon evaporation of water, the product will cure to an elastomeric film.