TUSI HAYTHAM BIO LIMITED
Chemistry for a Greener Planet

Technical Data Sheet

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SOFISURF™ Series – SOFISURF HS 400

Hydrophilic Silicon Softener – Macro Hydrophilic Silicone
Manufacturer: Tusi Haytham Bio Limited

Product Description:

SOFISURF HS 400 is a macro hydrophilic silicone-based textile softener designed to impart excellent softness, smoothness, and moisture affinity to fabrics.
It forms a hydrophilic silicone layer on fiber surfaces, improving water absorption, wettability, and fabric drape. Ideal for cotton, polyester, blended fabrics, and technical textiles, it is suitable for soft finishing, moisture-retentive treatments, and performance textiles.

Key Performance Properties:

- **Provides soft, smooth, and hydrophilic hand feel.**
- **Enhances water absorbency and wettability.**
- **Reduces surface friction and improves fabric drape.**
- **Compatible with most textile auxiliaries and finishing processes.**
- **Stable under normal processing conditions and maintains performance after repeated washing.**

Typical Properties:

Property	Specification
Appearance	Milky white liquid
pH (25 °C)	5.0 – 7.5
Ionic Nature	Nonionic / Hydrophilic Silicone
Solubility	Dispersible in water; forms stable emulsion
Specific Gravity (25 °C)	0.97 ± 0.02
Stability	Stable under normal textile processing conditions

Application:

- **Apply SOFISURF HS 400 in softening or finishing baths, or via pad-dry-cure treatment.**
- **Typical dosage: 0.3 – 2.0 % owf, depending on fabric type and desired hydrophilic effect.**
- **Ensure uniform distribution by stirring or padding.**
- **Compatible with other finishing auxiliaries; optimize processing parameters through lab trials.**

Precautions:

- **Avoid direct contact with eyes and skin; wear protective gloves and goggles.**
- **Do not mix with strong acids, oxidizers, or incompatible chemicals in concentrated form.**
- **Store in tightly sealed containers in a cool, dry place.**

Packing Size:

Available in 25 kg, 60 kg, and 120 kg HDPE drums.

Storage:

- **Store in a cool, dry, ventilated area below 40 °C.**
- **Shelf life: 12 months from the date of manufacture in unopened containers.**
- **Check product label for "Best use before end" date.**

Issued by:

Tusi Haytham Bio Limited – Technical Division
Product: SOFISURF™ Series – SOFISURF HS 400
Category: Hydrophilic Silicon Softener – Macro Hydrophilic Silicone