

## UNIPES COMFORT

### Hydrophilic, Antistatic, Soil-Release Finish for Polyester and PES/Blended Fibers

**Characteristic** : Hydrophilic emulsion.

**Appearance** : Creamy liquid.

**Ionic State** : Nonionic.

**Properties** :

- Polyester fabrics offer a good substrate in terms of tensile strength and anti-crease properties but their hydrophobic nature and poor conductivity make static build-up causing discomfort to human body when used as out- wear apparel for athletes or sports wear.
- We may sum-up, undesirable properties of Polyester as follows,
  - Difficult to dye,
  - Poor conductivity due to static build-up,
  - Crease tendency in rope-form processing,
  - Easily soiled and difficult to clean,
  - Lacking the comfort of natural fibers.
- **UNIPES COMFORT** is developed to eliminate above mentioned, negative points. It imparts on to polyester fiber;
  - Perspiration absorbency and conveyance away from human body,
  - Dye bath lubricant,
  - Oligomer removal/ oil scavenging,
  - Static dissipation,
  - Silicon-like softness,
  - Hydrophil finish.
- On polyester or PES/ Blends (minimum 50 %), as the temperature increases, fiber swell allowing penetration of **UNIPES COMFORT** into the fibers is provided. An aromatic region of UNIPES COMFORT is substantive toward the aromatic regions of PES fibers. These anchors penetrate into PES fibers and block hydrophilic portion on the fibers surface, which impart hydrophilic property.

Rev: 05  
15.07.2011

- **UNIPES COMFORT** serves as a transport medium between dispers dye and hydrophobic polyester surface, which allows even distribution of the dye molecules on to the fabric surface.
- It is well-known as the dyeing temperature of PES is approached to 110 - 130 °C, the fiber softens and oligomers in the amorphous regions are exposed to the dye bath and hence deposit on fabric surface and machine lining. **UNIPES COMFORT** anchored on oligomeric material and keeps them in dispersed form, prevent agglomeration and deposit on fabric during cooling stage.
- **UNIPES COMFORT** functions as a dye bath lubricant by surface deposition and adsorption onto PES fiber and effectively reduces fiber-to-fiber abrasion and crease Marks.
- Oil soil are removed from the PES substrate much easier due to the hydrophilic barrier of **UNIPES COMFORT** on the surface. Strong repulsion between **UNIPES COMFORT**'s hydrophilic barrier and hydrophobic oil, forces the oil to leave the fabric quickly during washing. Due the hydrophilic and oil scavenging property, **UNIPES COMFORT** is strongly advised during pre-heat setting of PES and PES/Elastane knits and woven.
- Hydrophilic layer of **UNIPES COMFORT** on fiber surface serves to hydrate enough water to dissipate static charge and acts anti static agent.
- Due to all these super properties **UNIPES COMFORT** is utilized on PES and blended fabrics in heat setting padder to remove silicon and grease oils during washing or dyeing step and prevent crease formation, in dyeing.
- Improve raising of blankets polar knits.
- Improve penetration of printing paste, into PES fabric.

**Solubility** : Soluble in warm water.

**pH(25 °C)** : 4,5 - 5,5

**Application** : UNIPES COMFORT is applied on polyester and PES blended fabrics. It is diluted by cold water prior to adding main supply tank.

**Stenter padder;**

**a-** Heat Setting

**UNIPES COMFORT** 10 - 20 g/L

FIXECLEAN JT 200 10 - 20 g/L

**b-** Finishing

**UNIPES COMFORT** 20 - 30 g/L

**In exhaust bath;**

**a-** Dyeing

**UNIPES COMFORT** 1 - 2 %

**b-** Finishing

**UNIPES COMFORT** 2 - 3 %

**c-** Raising

On polar fabrics, raising process is shorter and better performance.

**UNIPES COMFORT** 3 % or 30 g/L

Softener for Cotton x

**d-** Printing

Prior to printing in padder,

**UNIPES COMFORT** 10 - 30 g/L

**Storage** : 1 year.

These data are based on our practical experience and may be recommended only without any liability, due to the different plant conditions.

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