

UNIPES RELAX

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

Characteristic : Hydrophilic emulsion.

Appearance : Creamy viscous 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 RELAX** 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.
 - Hydrofil finish.
 - Laundry, durability.

- On polyester or PES/ Blends (minimum 50 %), as the temperature of PES increases, fiber swell allowing penetration of **UNIPES RELAX** into the fibers. Aromatic region of **UNIPES RELAX** is substantive toward the aromatic regions of PES fibers. These anchors penetrate into PES fibers and lock hydrophilic portion on the fibers surface, which impart hydrophilic property.
- **UNIPES RELAX** serves as a transport medium between disperse 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 RELAX** adsorbed oligomeric material and keep them in dispersed form than being redeposited during cooling period, preventing agglomeration.
- **UNIPES RELAX** 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 is removed from the PES substrate much easier due to the hydrophilic barrier of **UNIPES RELAX** on the surface. Strong repulsion on between **UNIPES RELAX** hydrophilic barrier and hydrophobic oil, forces the oil to leave the fabric quickly during washing. Due the hydrophilic and oil scavenging property, **UNIPES RELAX** is strongly advised during pre-heat setting of PES and PES/Elastane knits and woven.
- Hydrophilic layer of **UNIPES RELAX** on fiber surface serves to hydrate enough water to dissipate static charge and acts anti static agent.
- Due to all these super properties **UNIPES RELAX** 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 RELAX 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 RELAX 10 - 20 g/L

FIXECLEAN JT 200 10 - 20 g/L

b- Finishing

UNIPES RELAX 20 - 30 g/L

In exhaust bath;

a- Dyeing

UNIPES RELAX 1 - 2 %

b- Finishing

UNIPES RELAX 2 - 3 %

c- Raising

Polar fabrics are raised uniformly in shorter period.

d- Printing

Penetration is improved brighter and sharper contours.

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.