VELVETOL™ 1471

Velvetol 1471 is a multifunctional hydrophilic polyester polymer. While polyester fabrics offer a good substrate in terms of tensile strength and anti-crease properties, their hydrophobic nature, poor conductivity making static build up causes discomfort to human body when used as apparel material. Hydrophilic polyester technology has made it possible to finish polyester fabric that is cotton like, transports moisture and is easy to clean. Velvetol 1471 imparts that finish to polyester fabric in both exhaust and pad cure process without sacrificing key properties of the fabric.

For further information regarding this product please refer to:

Consumer Materials Synthomer

eMail: consumer.materials@synthomer.com

Property	Typical Value	Unit	Method[1]
pH (5%)	6.0		DIN ISO 976
Appearance	Off white to tan pastilles		
Activity	97	%	
Solubility	Completely dispersible at 80 – 85 C		
Flash Point	>93	C	

[1] internal method based upon the specified norm

FEATURES

- Imparts durable properties to polyester fabric when properly heat set.
- Provides durable moisture transport characteristics.
- Goods finished with Velvetol 1471 dispersions provide a silicone like finish after proper heat setting.
- A good anti static agent for polyester fabric and fiber.
- Is thermally stable to go through heat set conditions for polyester fabric.
- Provides fiber to fiber lubricity eliminating fabric abrasion and crease marks.
- Velvetol 1471 dispersions eliminate oligomer build-up and keep machine parts clean.
- Provides hydrophilic barrier preventing re-deposition of spinning and knitting oils.
- Improves exhaustion rate thus minimizing effluent discharge.
- Improves wet and dry fastness properties of disperse dyes.
- Fabrics finished with Velvetol 1471 dispersions provide longer garment life and protect from needle cut.
- Due to softness and lubricity fabric displays good drape.
- Minimizes static build up.

DILUTION PROCEDURE

It is recommended that the product is dispersed in water up to a maximum of 15% concentration. Above that concentration viscosity is too high to form a uniform dispersion. In order to make a stable dispersion high shear mixer or a homogenizer is required. The following steps are recommended:

1. Measure required quantities of Velvetol 1471 and water.
2. Start agitator of the mixing tank at > 300 RPM.
3. Adjust pH to 5.0 – 6.0 by adding 0.2% Acetic Acid.
4. Raise water temperature to 50 C
5. Separately apply high temperature steam to Velvetol 1471 for melting it.

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6. Add molten Velvetol 1471 to water at 50 C and raise temperature to 70 C

7. Mix over 2-3 hours, Homogenizer (4,000 – 5,000 psi) or high shear mixer of 3,000 RPM and above .

8. Addition of nonionic surfactant (1%), a penetrating agent (0.05%) and a small quantity of chelating agent will help in uniform dispersion and enhance performance of the end product in the final application. Addition of 1-2% PEG 400 helps form a stable product that has uniform properties throughout the batch.

9. It is important to filter the dispersion prior to packaging.

APPLICATION OF DISPERSION

Dispersions made from Velvetol 1471 are versatile in their application on polyester substrate via exhaust and pad thermosol process. They can be applied at the following concentrations:

Crimping Aide	0.5 – 1.0%	OWB 0.05 – 0.1% V-1471
Dye Leveler	2.0 – 4.0%	OWF 0.2 – 0.4 % V-1471
Fabric Finishing	1.0 – 3.0%	OWB 0.1 – 0.3 % V-1471

AVOID THE FOLLOWING CONDITIONS

- Combinations with cationics.
- Heat set temperature of > 190C.
- Bath pH of > 8.0 .
- Adding Velvetol 1471 dispersion to tank with electrolytes already present.

ABSORBENT PROPERTIES AND STATIC REDUCTION

Velvetol 1471 creates hydrophilic properties in polyester fabric together with moisture transportation thus creating a more cotton like finish on this synthetic material. It also reduces static generation on fabrics/garments and what is created subsides very quickly even after significant washing.

PACKAGING

25 kgs. bags on pallets.

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