# **Technical Bulletin**

### **ECCOSHIELD® PE-100**

#### CLASSIFICATION

A durable flame retardant for Polyester fabrics

#### **PROPERTIES**

Appearance - colorless to straw-colored, viscous liquid

Active Content - 92% minimum

Solubility - Clearly soluble in water

Density -10.5 lbs/gallon

pH - 4.2

#### **GENERAL COMMENTS**

ECCOSHIELD® PE-100 is a durable flame retardant for application to polyester fabrics. When applied from an aqueous system, properly cured, ECCOSHIELD® PE-100 will supply a most acceptable fabric from the standpoint of hand and durable flame retardancy. The applied finish is durable to a number of normal home launderings.

The application of **ECCOSHIELD® PE-100** will cause little to no effect on a dyed shade or pigment printed material. The application of this product followed by subsequent curing will product a desirable feel to the fabric. Should napping be desired, this residual material may very well serve to aid any napping operation.

Recommended applications will provide flame retardancy, which will give satisfactory results to NFPA 701 Flame Testing conditions. **ECCOSHIELD® PE-100** can be used in screen print inks to provide a print paste for flame retarded print.

#### **APPLICATION**

In the preparation of an application bath, it is simply prepared by adding  ${\tt ECCOSHIELD@PE-100}$  to warmed water (60°F) followed by application by padding.

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We suggest the preparation of 2.5%-10.0% solution followed by padding, which will provide a Wet Pick-up of 80%-100%.

Follow padding by adequate drying and curing. Curing temperature 365-400°F with a dwell time of 1-2 minutes allows polyester fabric to meet NFPA 701 Standard. Durable to 50 launderings.

### **Typical Print Paste Formula**

NFPA 701 test results on FR fabric:

Product	%	Description	After glow	Char length
Water	66	Print paste without FR	0	BEL*
Low Crock 5990	25			
Pigment dispersion	2	Print paste with PE-100	0	4"
Eccoshield PE-100	5			
Ecco Clear Conc OLH 7743	2			
Total	100			

<sup>\*</sup>BEL = Burned entire length