

ECCOSHIELD® PPE-4X

CLASSIFICATION

A non-durable flame retardant for cellulose, polyester, polypropylene, and other synthetic fabrics.

PROPERTIES

Appearance	Colorless to straw-colored, viscous liquid
Active Content	100%
Solubility	Clearly soluble in water
Density	10.5 lbs/gallon
pH	4.2 typical

GENERAL COMMENTS

ECCOSHIELD® PPE-4X is a flame retardant for application to polypropylene, polyester, other synthetic fabrics and cellulose. When applied from an aqueous system, properly cured, **ECCOSHIELD® PPE-4X** will supply a most acceptable fabric from the standpoint of hand and flame retardancy. **ECCOSHIELD® PPE-4X** is designed for automotive, industrial and commercial fabrics, as well as upholstery, wall covering and drapery fabrics.

The application of **ECCOSHIELD® PPE-4X** will cause little to no effect on a dyed shade or pigment printed material. The application of this product followed by subsequent curing will produce 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 and MVSS #302 Flame Testing conditions.

ECCOSHIELD® PPE-4X can be used in screen print inks to provide a print paste for flame retarded print.

APPLICATIONS

In the preparation of an application bath, it is simply prepared by adding **ECCOSHIELD® PPE-4X** to warm water (60°F) followed by a padding application.

We suggest the preparation of 2.5%-4.0% solution followed by padding which will provide a wet pick-up of 80%-100%. Follow padding by adequate drying and curing. A curing temperature of 365-400°F with a dwell time of 1 - 2 minutes allows polyester fabric to meet NFPA 701 Standards.

For polypropylene, dry at 215 – 240°F.

Typical Print Paste Formula:

E.B. LOW CROCK 5990	- 25.0%
Pigment Dispersion	- 2.0%
ECCOSHIELD® PPE-4X	- 5.0%
E.B. CLEAR CONC OLH-M 7742	- 2.5%
Water	- 65.5%
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Total	100.0%

Flame Test Results on FR Fabric by NFPA 701:

	<u>After Glow</u>	<u>After Glow</u>	<u>Char-Length</u>
Print Paste			
without FR	0	0	BEL*
Print Paste			
with PPE-4X	0	0	4"

* BEL - Burned Entire Length



ECCO LOW CROCK 5990	15 – 20%*
Pigment Dispersion	2 – 6%**
Mix	
Premix the previous items then add:	
Water	20%
ECCOSHIELD® PPE-4X	4–5%***
Ammonia to a pH 8.0–9.0	~0.5%
Mix Well	
Water	45 – 55%
ECCOBRITE™ CLEAR CONC OLH-M 7742	2 – 3%

Notes

- * Amount depends upon desired crock properties
- ** Amount depends upon desired shade
- *** Amount depends upon binder type and amount