



PYROBREAK[™] EX15

Product Bulletin

Pyrobreak EX15 is a water soluble, phosphorus-based flame retardant used to impart non-durable flame retardancy to cotton/polyester fabrics. Pyrobreak EX15 is a low viscosity, 38 percent active product that can provide flame retardancy to cotton/polyester fabric with 6.0 to 12.0 percent add-on by dry weight basis. Fabrics properly treated will meet NFPA 701 tests.

APPEARANCE

1. Clear Liquid
2. Very low odor

TYPICAL PROPERTIES

Weight/gallon:	9.8 ± 0.2 lbs.
Viscosity:	< .5 centipoise
Solids:	38.0 ± 1.5%
pH:	5.0 ± 1.5%

APPLICATION AND FABRIC PROCESSING

Pyrobreak EX15 may be applied by brushing, dipping, padding, or spraying. The recommended method of application is padding. Drying may be carried out at normal drying temperatures, but drying conditions should always be checked experimentally. Curing temperatures should not exceed 300 degrees.

The fabric to be treated should be clean and absorbent as the presence of dirt, size, natural waxes or applied finishes will prevent efficient absorption of Pyrobreak EX15

To produce flame retardant cotton/polyester fabrics which meet NFPA 701, the application of sufficient Pyrobreak EX15 flame retardant to fix 6.0-12.0 percent flame retardant on the fabric is normally adequate.

In order to determine optimum application levels, each fabric style to be processed should be treated with varying levels of Pyrobreak EX15 flame retardant and tested for flammability.

BATH PREPARATION AND PROCESSING

Pyrobreak EX15 flame retardant may be applied through aqueous solutions by a pad and dry procedure without additional bath additives. It is, however, compatible with most common wetting agents, antimigrants, and buffers used to improve fabric processing and properties.

Pyrobreak EX15 flame retardant is compatible with nonionic and anionic surfactants which may be used to promote rapid, even, and thorough wetting of the fabric. The use of a buffer to raise the pad-bath pH to 6.0-6.5 may be desirable.

Bath preparation and processing conditions shown below are recommended for light weight fabrics.

Bath Preparation and Processing Procedure

1. Dissolve sufficient Pyrobreak EX15 flame retardant in water to give a 15-20% solution.
2. Adjust the solution pH to 6.0-6.5 using disodium phosphate.
3. Dissolve 0.02-0.005% nonionic or anionic surfactant if required.

Processing

4. Remove all residual size and oils.
5. Pad to 40-60% wet pick-up.
6. Dry for 1-2 minutes at 225-275 degrees F.

Pyrobreak EX15 is not fast to washing or water, and the treatment must be renewed after laundering the fabric. Pyrobreak EX15 treatment will withstand 12 dry cleaning cycles based on perchloroethylene. However, any aqueous additives or use of charged dry cleaning systems must be avoided.

PACKAGING

The product is available in 5-gallon pails or 55-gallon drums. It should not be repackaged without consulting FRC PyroTech.

STORAGE

Pyrobreak EX15 should be stored at temperatures above freezing and below 100 degrees F. Should the product freeze, it can be reconstituted by warming gently to 75 degrees with mixing. At temperatures above 90 degrees, there may be a slight amount of ammonia gas released. Care should be taken when opening drums as there may be a slight pressure build up.

HANDLING AND USE

Wear rubber gloves and safety goggles to avoid potential skin or eye irritation when applying the product. While Pyrobreak EX15 is considered non-hazardous, the product may cause irritation in certain individuals.

The product should be stirred before application. Some applications may require dilution with water. Check with the manufacturer for instructions. The product contains a low-foaming wetting agent so the use of a defoamer is not required and should be avoided as it may reduce wettability.

Pyrobreak EX15 is completely water soluble and, therefore, the application equipment and spills may be cleaned with water.

SAFETY AND FIRST AID

Pyrobreak EX15 contains no solvents or hazardous chemical components.

The following procedures, though, should be followed when using the product:

1. Use proper breathing apparatus to protect from misting when product is applied with a sprayer.
2. Flush eyes with water for at least 15 minutes if product contacts them. If irritations occurs, seek medical attention.
3. Wash skin thoroughly with soap and water if product contacts it. If skin irritation occurs, seek medical attention.
4. Induce vomiting and seek medical attention if product is swallowed.

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