



## PYROBREAK™ EX18

### Product Bulletin

**Pyrobreak EX18** is a 60% solids, concentrated, water based flame retardant system containing a wetting agent designed to increase the rate and depth at which the fire retardant will penetrate paper, paperboard, wood, and natural fiber fabrics. The flame retardant saturant works by reducing the threshold ignition temperature by completely dehydrating the cellulose fibers. This alters the decomposition favoring the formation of non-flammable char and significantly reduces the formation of combustible tars.

#### APPEARANCE

1. Clear liquid. Strong, sweet odor.
2. Dries clear and odorless on paper, paperboard, wood, and fabric.

#### TYPICAL PROPERTIES

Weight/gallon:	11.1 ± 0.2 lbs.
Viscosity:	< 10 centipoise
Solids:	60.0% ± 1.0%
pH:	7.0 ± 0.5

#### APPLICATION METHODS

**Pyrobreak EX18** is applied by spray, dip, roller, or brush. The product can be sprayed on at the wet end of a paper machine or added into the size press or water boxes on the dry end of the paper machine. The saturant can also be applied with a coater and in some cases with a multi-station printing press.

Saturant application rates will depend upon the flammability rating required and the test specification. Generally, an application of 10% to 15% (dry weight basis) to a paper or paperboard substrate will provide retardancy to meet any standards. Saturation of substrates is best accomplished when **Pyrobreak EX18** is diluted with water. 1 part **Pyrobreak EX18** to 2 or 3 parts water.

#### PRODUCT BENEFITS

? P.O. Box 221980, Carmel CA 93922 • 831.625.3007 fax 831.625.3424  
? 1120 A Republic Drive, Addison, IL 60101 • 630.628.1120 fax 630.628.0870  
Website: [www.pyrotech.ws](http://www.pyrotech.ws) • 800.787.0011

Flame Retardant  
Gluable  
Printable  
Flexible  
Repulpable  
Water based/ Solvent free  
Non-hazardous

The Product is gluable with many waterbased adhesives, but should not be used with hot melt adhesives. Some experimentation with inks may be required but, in most cases the treated paper is printable. Glues and inks should be evaluated before production.

## PACKAGING

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

## STORAGE

**Pyrobreak EX18** should be stored at temperatures between 50 and 90°F. Should the product freeze, it can be reconstituted by warming gently to 75°F with mixing. At temperatures above 90°F, there may be a slight amount of ammonia gas released.

## HANDLING AND USE

Wear protective mask, gloves, and safety goggles to avoid potential nasal, throat, skin, or eye irritation while applying the product by spray. While it is non-toxic, the product may cause skin irritation in certain individuals.

The product should be stirred before application. 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 watability.

Before applying **Pyrobreak EX18**, the substrate should be clean and checked for penetration. Poor penetration usually results in poor flame retardancy. Paper and paperboard require between 10% to 15% (dry weight) **Pyrobreak EX18** to achieve low flame spread values. The amount of **Pyrobreak EX18** applied to wood will depend on the species and flame spread test required.

**Pyrobreak EX18** is completely water soluble and therefore, the application equipment and spills may be cleaned with water.

## SAFETY AND FIRST AID

**Pyrobreak EX18** 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.

EVERY EFFORT HAS BEEN MADE BY THE MANUFACTURER TO ENSURE THAT THE INFORMATION CONTAINED IN THIS PRODUCT BULLETIN IS FACTUAL AND RELIABLE. HOWEVER, ALL IMPLIED WARRANTIES OF THE PRODUCT'S MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND/OR ANY OTHER MATTER — WHETHER USED SINGLY, IN COMBINATION WITH OTHER SUBSTRATES, OR IN ANY PROCESS — ARE HEREBY DISCLAIMED BY THE MANUFACTURER AND EXCLUDED.