



Flame Retardants

Today, everyone should be concerned about safety in theatrical and entertainment venues. In particular, fire safety is a hot topic and primary concern. Here we introduce some basics about Flame Retardants - we encourage you to call us at **1-800-243-4950** to discuss your specific needs.



Flame Retardants vs Fireproofing

Flame Retardants do not prevent ignition and burning, however successfully treated materials will not sustain a flame on their own. A piece of scenery treated with flame retardant may burn while a source of flame is held in contact with it. However, once the source of flame is removed, properly treated materials will self-extinguish. A real rock is essentially fireproof. A piece of scenery intended to look like a rock is more likely, when properly prepared, flame retardant.

Treat & Test

Treated materials should be tested after an initial treatment, after cleaning and periodically as prescribed by the flame retardant manufacturers. To test a material, hold a flame source to the lower edge of a small sample for 10 – 15 seconds, and then remove it. A properly flame retardant material will self-extinguish after a few seconds.

Many flame retardant products are water-soluble and are removed or weakened by laundering and wet conditions. Some are unaffected by dry cleaning, however they should always be retested after cleaning.

Application Methods/Textiles

- Immersion – The most efficient method of impregnating fibers is to immerse unpainted fabric.
- Brushing on – Brushing the flame retardant on is less efficient, but generally successful if done thoroughly. It is sometimes necessary to brush on to both sides of the fabric.
- Spraying on – Spraying on is also less efficient, but generally successful if done thoroughly and if before and after weighing of the fabric is done to determine that an adequate quantity of

the retardant has been absorbed. A substantial portion of sprayed retardant is wasted as it falls to the floor.

Notes:

Application of a flame retardant may alter the characteristics of some fabrics. See the manufacturer's notes for more information.

Some fabrics may contain starch added by the manufacturer and will require laundering and drying prior to treatment.

Application Methods/Hard Scenery

- Penetration – Retardant is applied to a material that will allow adequate penetration. This is usually only applicable where immersion is possible.
- Coating – Retardant is applied as a protective coating by brush, roller or sprayer. The coating must be complete and meet manufacturers thickness requirements.

Disclaimers

Local regulations regarding fire safety and flame retardants vary widely. You should always check and understand the regulations applicable to your location.

To insure your safety and the successful application of the product, read and follow the manufacturer's instructions.

Choosing a Flame Retardant

Limelight recommends (& stocks for immediate delivery) **Roscoflamex** for most applications.

Roscoflamex C26 is a concentrated flame retardant for treating natural-fiber textiles, paper products, and other cellulosic materials.

Roscoflamex S33 is intended for synthetic fabrics including polyester, nylon, acrylic, rayon and many cotton/synthetic blends.

Roscoflamex W40 is for flame retarding untreated wood, plywood, acoustical board, cellulose board and corrugated by penetration.

Roscoflamex P50 is an un-pigmented liquid added to paint to render the paint film flame retardant. It also may be applied as a clear glaze over previously painted scenery.

RoscoFlamex

Material	C26	S33	W40	P50
Acrylic Fabric	no	Best!!	no	no
Acoustical Board	no	no	Best!!	no
Burlap	Best!!	no	no	no
Canvas	Best!!	no	no	no
Cellulosic Board	no	no	Best!!	no
Cellulosic Material	Okay	no	Best!!	no
Cheesecloth	Okay	Okay	no	no
China Silk	Okay	Okay	no	no
Corrugated Paper	Best!!	no	Best!!	no
Cotton	Best!!	no	no	no
Duveltyne	Best!!	no	no	no
Felt	Okay	Best!!	no	no
Fluorescent Paint	no	no	no	Best!!
Hay	no	no	Best!!	no
Iddings Deep Colors	no	no	no	Best!!
Muslin	Best!!	no	no	no
Nylon	no	Best!!	no	no
Off Broadway Paint	no	no	no	Best!!
Paper	Best!!	no	Okay	no
Plywood	no	no	Best!!	no
Polyester	no	Best!!	no	no
Rayon	no	Best!!	no	no
Scrim	Best!!	no	no	no
Supersaturated RoscoPaint	no	no	no	Best!!
Satin	no	Best!!	no	no
Synthetic Fabrics	no	Best!!	no	no
Velour	Best!!	no	no	no
Velvet*	Best!!	Best!!	no	no
Wood (untreated)	no	no	Best!!	no
Wool	Best!!	Okay	no	no

* Use C26 for natural fiber velvets, or use S33 for synthetic fiber velvets.

For more information about Roscoflamex, visit the Rosco website - www.rosco.com .

You can get more information about Flame Retardant standards and testing by visiting the ANSI (American National Standards Institute) website - <http://www.ansi.org> and the NFPA (National Fire Protection Association) website - <http://www.nfpa.org>

To order RoscoFlamex, or to answer your specific questions regarding flame retardant treatments, call us at **1-800-243-4950**.

Caution

When testing a material for flame retardant properties, make sure that you have taken all of the appropriate precautions including conducting the test away from other possible flammable materials, having fire extinguishing equipment ready, etc. When possible, it is advisable to have a trained and certified professional conduct the testing.

Remember

Inherently Flame Retardant materials do not require testing and retreating. Before you test or treat, make sure to check your documentation. Treating an IFR curtain with flame retardant may damage it's appearance.



This article is reprinted from **In The Limelight** – an occasionally published column of tips and how-tos found on www.limelightproductions.com.

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LIMELIGHT
PRODUCTIONS, INC.

471 Pleasant Street
Lee, MA 01238

1-800-243-4950
1-413-243-4950

www.limelightproductions.com