What's the Difference Between Flame Retardant and Flame Proof Fabrics?

What response would you expect to receive if prior to buying a flame retardant (FR) fabric you asked, “In the event that the onsite Fire Marshal holds a match to this fabric, will it burn?” You might be surprised to hear the response from a provider, “Yes! It will most certainly burn.”, if you had assumed the FR designation meant it would be flame proof.

This question brings up the common misconception about the difference between flame retardant vs flame proof fabrics.

The Flame Retardant (FR) Designation for Fabrics
Flame retardant does NOT mean that a fabric will not burn. Just about any flame retardant fabric will burn to some extent, depending on the degree of heat. What distinguishes an FR fabric from an NFR (non-flame retardant) fabric is the degree to which each will burn.

A FR fabric will experience much less burning – when fire is introduced to the fabric, the flame retardant properties of the fabric will cause the flame spread to be slowed considerably (sometimes to almost nothing) and the flame will self-extinguish once the initial flame source is removed. With an NFR fabric, there is nothing to retard the flame, and therefore the flame will spread rapidly through the fabric and will continue to spread, even after the initial flame source is removed.

The Certificate of Flame Retardancy
It would be unfair to ask any fabric provider to guarantee that any FR/IFR/DFR fabric (flame retardant, inherently flame retardant, and durably flame retardant) will not burn if flame is introduced, because it will burn to some extent. However, the provider’s Certificate of Flame Retardancy verifies that the fabric is flame retardant and has been tested to ensure that the burning is minimal and that the flame extinguishes rapidly, according to standards set by the National Fire Protection Association.

Which brings up the question: Is there such a thing as flame proof fabric? One touted fabric is Glass Cloth. Glass Cloth (also known as Woven Glass) is composed of 100% woven fiberglass. According to our research, Glass Cloth is considered non-combustible (i.e. flame proof) due to its extremely high heat resistance (2075 degrees Fahrenheit, according to a manufacturer of this product). We haven’t worked with Glass Cloth (or even handled it), so we don’t know how appropriate it would be for custom stage curtains. We also suspect that it may cost more than traditional stage fabrics. But it certainly sounds interesting.

For More Information on Flame Retardancy:
Whether you are utilizing fabric for stage drapes or huge digitally-printed backdrops, trade show booth panels or special event drapery, one key factor is ensuring that the fabric you choose meets flame retardancy regulations, requirements and standards. This can be a complicated issue to understand. You can find much more about flame retardancy issues on our website at http://www.seewhatinc.com/flameretardancy.php.
About Sew What? Inc.
Sew What? Inc., located in Rancho Dominguez, California, is a well-known stage and theatrical drapery manufacturer known for its dramatic theatrical drapes and fabrics used in major rock concerts, top fashion shows and other artistic staged venues. For information, contact Sew What? Inc. at (310) 639-6000, or email inquiries@sewwhatinc.com.

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Rent What? Inc. is committed to providing an ultimate experience in drapery rental products and customer service. The company is widely regarded for its basic pricing schedules, innovative damage waiver policy and fast and friendly service. For information, contact Rent What? Inc. at (310) 639-6000 or visit www.rentwhatinc.com.