

# Flame Retarding Options for Stage Curtains

## Specialty Theatre White Paper



### Summary Points

Stage curtains are important components for any production, from school plays to concerts and everything in between.

However, curtains pose several risks, most notably the risk of fire from contact with lighting. To combat the risk of fire, flame retarding has become mandatory for theatres and stages.

There are several different flame retarding options out there, and it's a good idea to know what they are and what they offer.

NFR: Not Flame Retarded

FR: Flame Retarded

NDFR: Non-durably Flame Retarded

DFR: Durably Flame Retarded

IFR: Inherently Flame Retarded

All stage or theatre curtains should be clearly labelled indicating what category of flame retarding treatment has been applied and which national or state regulatory standard have been met.

Australian Standard AS1530 Parts 2 & 3 address Australian flame retarding standards for theatre and cinema requirements and are a good reference for your venue.

Please feel free to call us if we can help.

*"Specialty Theatre use first-hand experience to design theatrical equipment that is practical and reliable, which is why their products have been sold in over 28 countries around the world"*

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# Flame Retarding Options for Stage Curtains

Stage curtains are important components for any production, from school plays to concerts and everything in between. However, curtains pose several risks, most notably the risk of fire from contact with lighting. To combat the risk of fire, flame retarding has become mandatory for theatres and stages. There are several different flame retarding options out there, and it's a good idea to know what they are and what they offer.

## **There are four primary designations for flame retarding.**

**NFR:** If you find stage curtains with this rating, it means that they are not flame retardant at all. These are not good solutions for any curtains that will be in close proximity to lights or other heat sources. Use of NFR rated fabrics should be limited to help ensure the safety of the cast, crew and audience.

**FR:** The designation FR means that a fabric is flame retardant, at least to some extent. Usually, this is done by applying a chemical to the fabric during the manufacturing process. It's important to note that this type of fabric is not flame retardant for the life of the fabric. Rather, it usually offers flame retarding properties for about a year (though they can be effective for much longer). The primary concern here is that you will need to eventually reapply the flame retarding chemical to ensure on-going safety and fire code compliance.

**NDFR:** NDFR means fabric that has been treated with flame retardant chemicals. These chemicals, however, can be removed or their efficacy reduced by washing or wetting the fabric. NDFR fabrics can usually be dry cleaned but it is better not to wet them with water or steam.

**DFR:** DFR means that a fabric has been warranted by the manufacturer as being "durably" flame retardant. Unlike FR rated fabrics, those with DFR ratings offer flame retardancy for the life of the fabric, though they are not necessarily as flame retardant as IFR rated fabrics. There are conditions that can reduce the fabric's flame retarding properties, as well, so regular testing is advised for theatres or other locations that make use of stage curtains with this rating.

**IFR:** IFR fabric is inherently flame retarding, which means that the fibres themselves resist the effects of fire, rather than being fire retardant due to a chemical application (in most situations). IFR fabrics are excellent solutions for situations where curtains will be in close proximity to light or heat sources that might pose a fire risk.

## **The Difference between Fire Retarding and Fireproof**

Many people mistake "fire retardant" for "fireproof". The fact is, these terms are not interchangeable. Fire retarding fabrics WILL burn – they are just resistant to heat and offer more protection than fabrics that have no fire retarding capabilities at all. In comparison, fireproof fabrics will not burn at all.

The main benefit of using fire retardant fabric is that it will not burn immediately, and sometimes will not burn at all depending on the level of heat applied to the fabric. However, it will eventually burn, and can burn just as quickly as fabric with no flame retarding properties at all in some situations.

There are very few fabrics available that are fully flame proof, though there are some that have debuted in recent years, such as Glass Cloth.

For further information please contact Specialty Theatre or an authorised Specialty Theatre dealer.