

Global Guide to **Flame Retardancy**

Contract Fabric Experts
Global Guide to Flame Retardancy



panaz.com

Contents

- 06 British FR Requirements for Drapery
- 07 European Specific FR Requirements for Drapery
- 08 British & European FR Requirements for Upholstery
- 10 British & European FR Requirements for Bedding
- 11 British & European FR Requirements for Bed bases & Mattresses
- 13 USA FR Requirements - Upholstery and Drapery
- 14 MED - The Wheelmark
- 15 Marine Global FR Requirements
- 16 FR Application Types -
 - 18 Inherent
 - 20 Back Coating
 - 22 Lamination
 - 24 Semi-Permanent



Gallante Upholstery with halogen free FR backcoating



Who is this guide for?

From October 2006 all non-domestic premises in England*, Wales* and Scotland** were required to comply with a new fire safety order.

This guide is intended as a quick reference for A&D, Procurement and End Users on the flame-retardant requirements applicable to curtains, bedding, upholstery and beds used in contract applications or non-domestic dwellings.

It should not be used in isolation when assessing risk but should give a guide to the minimum technical performance for upholstery and soft furnishings fabrics.

Failure to meet the requirements of these regulations could lead to prosecution, which leads to hefty fines or conviction. This order replaced the previous fire legislation and any fire certificates issued under the Fire Precautions Act 1971 ceased to have effect.

* Regulation Reform (Fire Safety) Order 2005

** Fire (Scotland) Act 2005

Source of Data www.opsi.gov.uk and www.communities.gov.uk



Making the safest choice

Hospitality, Workplace, Marine and Healthcare industries in particular have extremely tight regulations around fire retardancy — and with good reason.

In contract environments every single piece of fabric must comply with FR requirements based on its use and location.

Every Fabric that Panaz sell is Contract FR

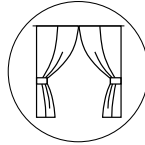
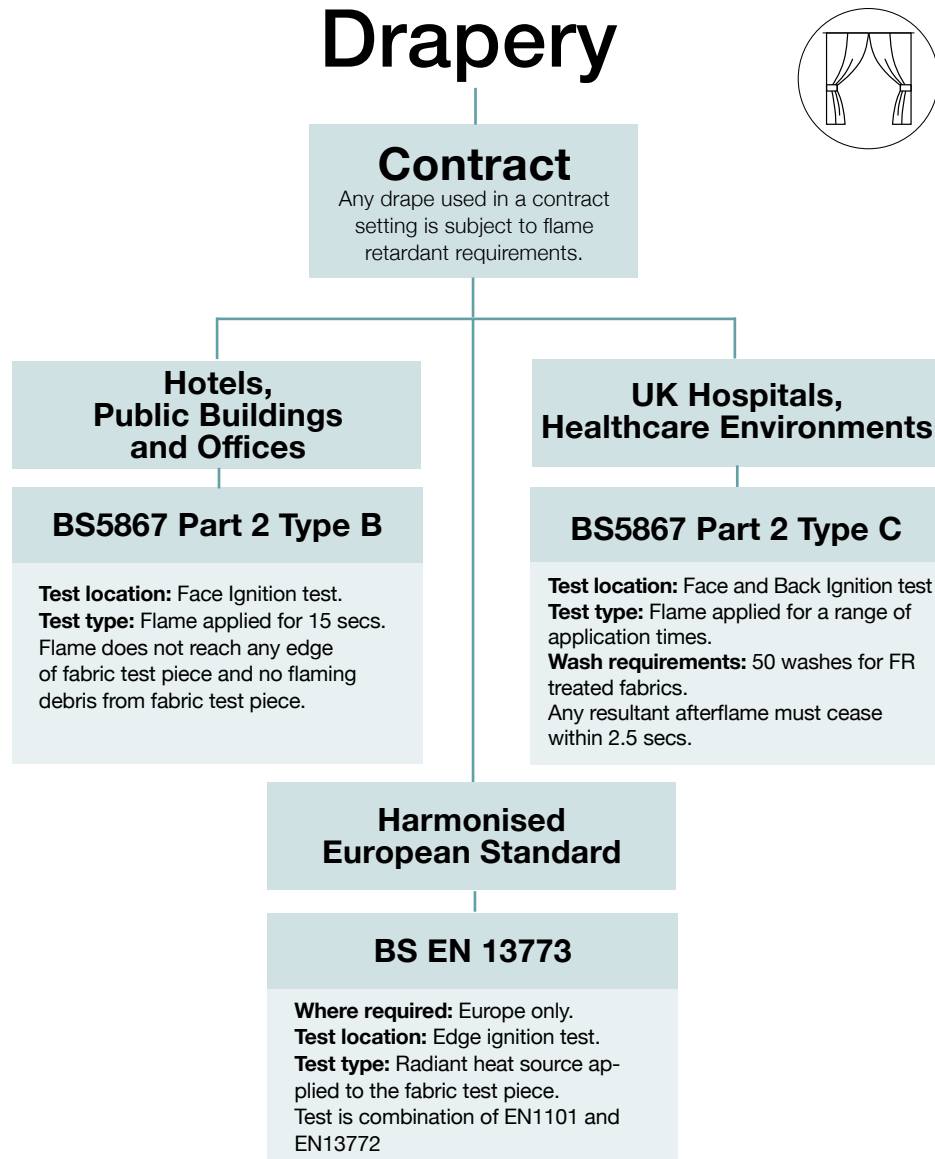
Panaz doesn't just supply flame retardant fabric because we have to, but also because we believe it's the right thing to do. We're passionate about the subject and are dedicated to raising awareness, while also developing new technologies to increase safety.

As a company, we were the first to introduce inherently flame retardant Trevira CS yarns to our industry, creating safer fabrics that prevent the spread of fire without the need for additional finishes, ensuring no impact on the aesthetic or textural qualities of the fabric, or the environment.

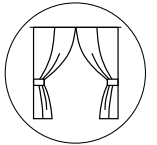
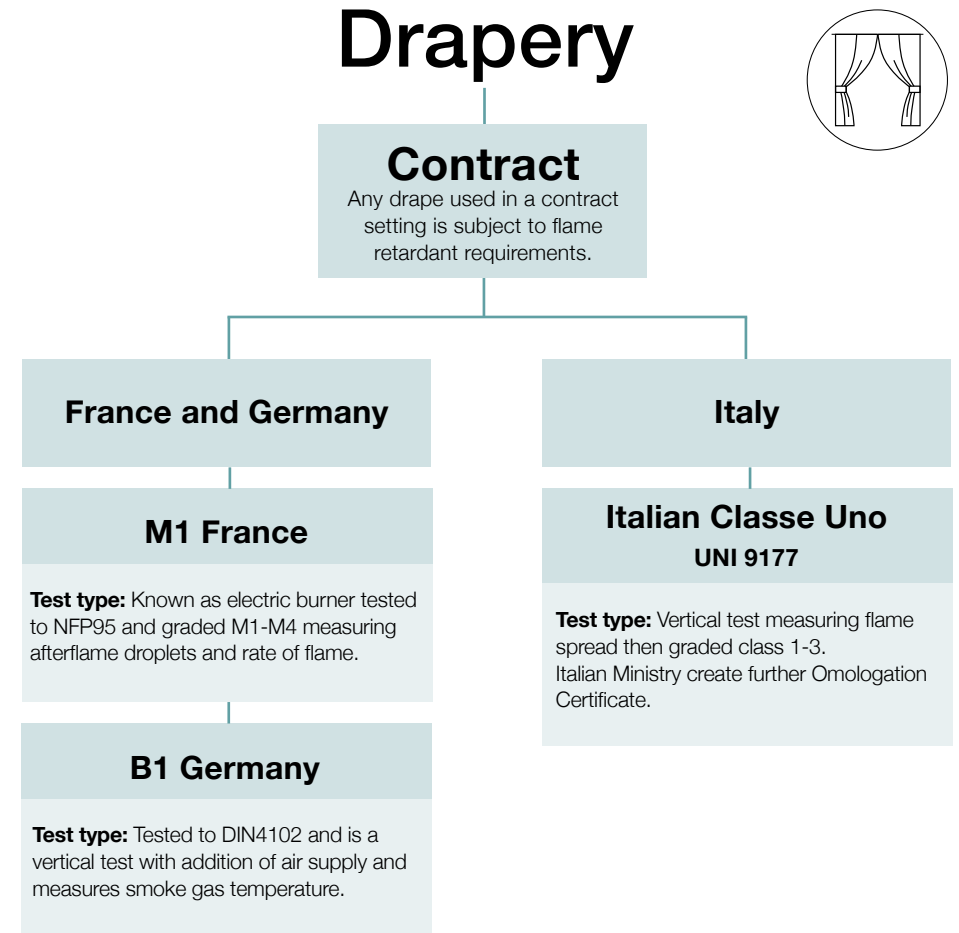
In addition, we've sponsored fire retardancy seminars that included an eminent panel of former firefighters and people involved in the Grenfell Tower review.

We believe in safety.

British FR requirements for -

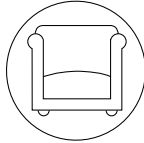


European Specific FR requirements for -



British & European FR requirements for -

Upholstery



Contract

Any upholstery used in a contract setting is subject to flame retardant requirements.

Performance Standard BS7176

This is a performance requirement that uses test methods BS5852 & EN1021 – 1/2 over specified FR foam and includes 3 Hazard levels.

Offices, Schools, Colleges

Performance Standard BS7176: LOW HAZARD

LOW HAZARD Cig & Match.
Tested to Cigarette (EN1021-1) and Match (EN1021-2) ignition sources.

Hotels, Public Buildings, Healthcare Environments

Performance Standard BS7176: MEDIUM HAZARD-Crib 5

MEDIUM HAZARD Tested to Cigarette (EN1021-1) and Match ignition (EN1021-2) with addition of Crib 5 (BS5852 : 2006) sources.

Prisons, some Hospitals and Offshore Installations

Performance Standard BS7176: HIGH HAZARD-Crib 7

HIGH HAZARD Tested to Cigarette (EN1021-1) and Match ignition (EN1021-2) with addition of Crib 7 (BS5852) : 2006 sources.

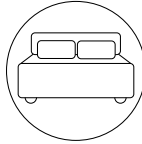
Italy

Italian Classe Uno UNI 9175 Class 1IM

Test type: Various flame application to the surface and the material is graded class 1 - 3.

British & European FR requirements for -

Bedding



Contract

Bed Covers Bedthrows and Pillows

BS7175 : 1989

Cigarette, Match and Crib ignition sources are used to satisfy the safety level based on a risk assessment and tested on complete unit ie pillows, quilts.

Matress Covers, Sheets, Blankets, Quilts, Pillows etc.

BS EN ISO 12952 – 1/2 : 2010

Cigarette and match ignition source are used for assessment of ignitability of individual bedding items.

British & European FR requirements for -

Bed Bases & Mattresses



Contract

Bed Bases and Mattresses

BS7177 : 2008 & A1 : 2011

Performance standard including three levels of hazard; Low, Medium and High.

Medium Hazard

Medium Hazard - Cigarette, Match and Crib 5.

High Hazard

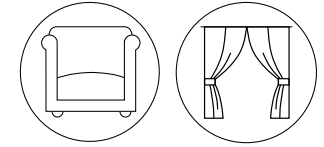
High Hazard - Cigarette, Match and Crib 7.



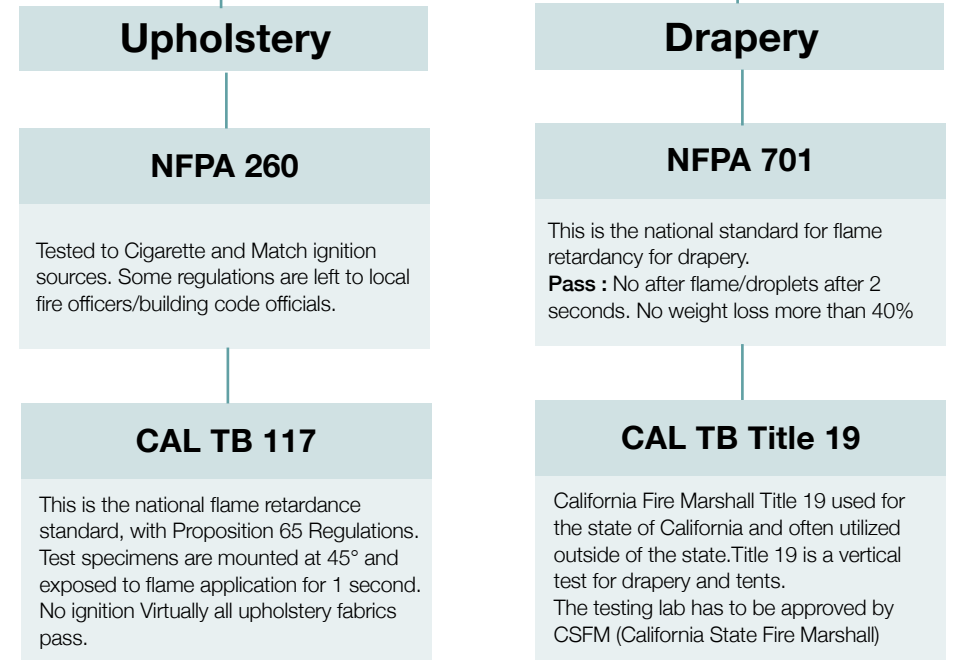
Astral with FR blackout coating

USA FR requirements for -

USA

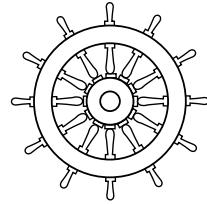


Contract



MED

The Wheelmark



The **Marine Equipment Directive (MED)**, enacted by the European Parliament, is a wide range of quality controls to provide guarantees around the safety of products on board ships.

Meeting this directive is essential for products placed on EU flagged vessels, and there are reciprocal agreements in place with **the US Coast Guard – who will also accept the MED's quality mark.**

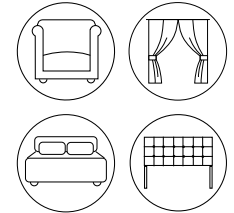
When you see the Wheelmark – as you will on a wide range of our products – it means that both the product and the manufacturer have undergone an extensive range of quality control inspections by an external agency. This doesn't just cover the IMO fire certificate, it covers production methods, internal quality control, technical specifications of each product, and globally is the most stringent inspection of materials being placed on ships.

The Wheelmark is awarded if you pass all aspects of the inspection. Products are awarded a Module B certificate and we – as the manufacturer – are awarded a Module D certificate.

Panaz are one of the few global textile providers to undergo this level of external inspection, and therefore can offer the Wheelmark. We take pride in placing the safety of lives at sea and quality control at the very heart of everything we do in this sector.

FR requirements for -

Marine



Contract

Drapery

IMO FTP Code 2010 Annex 1 Part 7

Test location: Edge and Face ignition test
Test type: Propane gas flame applied for 5 and 15 second intervals
 Any resultant afterflame must cease within 5 seconds.

Upholstery & Headboards

IMO FTP Code 2010 Annex 1 Part 8

Test type: Apply a propane flame application of 20 seconds over Non-FR foam.

Bedding

IMO FTP Code 2010 Annex 1 Part 9

Test type: Cigarette and Match ignition sources are used with additional fuel source (increasing the harshness) in the form of a cotton pad on top of the flame source.

Fixed Walls & Bulk Heads

IMO FTP Code 2010 Part 5

Test type: Measures surface spread and also evaluates the heat release during combustion.

FR application types

There are 4 main types of applying FR to fabrics

Inherent

Back Coating

Lamination

Semi-Permanent



Freya collection FR backcoated upholstery fabric

Inherent

How

FR added during yarn manufacture.
Each yarn is fully enveloped prior to weaving / knitting.

Attributes

Sustainable - no added chemical treatments
Variety of fabric weights and constructions available
Increased yarn strength
Durable to washing
Melts and shrinks away from the flame
Recyclable and eco friendly
Easy Care



Trevira CS melts away from the flame
absorbing ignition energy

Drawbacks

Can pill if not manufactured correctly



Astaire and Zena from the Novello Collection - woven from inherent Trevira CS yarns.

Back Coating

How

Liquid coating applied to the rear-side of the fabric creating a barrier to the flame, reduces the **Oxygen** and **Heat** available.

Attributes

Can be used on numerous fabric qualities
Reduces risk of splitting open
Invisible on fixed upholstery Creates Blackout

Drawbacks

Can affect handle and appearance on thin fabrics
Limited on drapery
Generally not washable
Must be tested for each fabric treated at UKAS labs



Harvard Upholstery with FR Backcoating.

Lamination

How

An additional layer is added, permanently via **heat, pressure and adhesives.**

Attributes

Usually halogen free as this is better for the environment
Brings added strength
Invisible on fixed upholstery
More consistent processing

Drawbacks

Can affect handle and appearance on thin fabrics
Can become rigid
Higher cost than coating
Retains air pockets



Rhythm from the Underground collection printed on Laminated EcoTwill.

Semi-Permanent

How

Fabric is dipped in liquid FR solution.

Attributes

Entire fabric is treated
Offers some durability to washing / laundering

Drawbacks

Durability is not permanent
FR will dissipate over time, particularly if laundered
Treatment is invisible so its not possible to visually assess when the treatment is no longer effective
Unable to determine the success of each application
Can rub off on skin contact

We are specialists in FR contract fabric.

For more than three decades, we have been making it easier for our customers to select safer and more flame retardant textiles, without compromising the look and feel of the fabrics.

Embracing technological advancements has kept us at the forefront of fire safety in contract textiles, with a proven history of pioneering innovation to improve our processes.

For these reasons we do not produce Semi-Permanent FR fabrics.



Parisienne Velvet Upholstery with FR back coating



Dreamscape laminated FR blackout



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