

## NF P92-503, 504, 505 AND 507

French FR Standart

FR

### Principle

NF P92-503 to 507 standard – FR fabric test for French contract industry (also known as M1)

#### Step 1 – NF P92-503

A fabric sample is placed in a metal frame above an extreme heat source at an angle of 30°. A flame is generated from the heat source directly on the surface of the fabric.

The following parameters are observed:

- How long the fabric continues to burn after the flame is removed (after flame)
- Are there burning droplets falling from the burning fabric
- Measure the length and width of the burn damage after the flame is distinguished

#### Step 2 – NF P92-504

This test must be performed if the fabric contracts or melts during the NF P92-503 test.

A fabric sample is placed vertically in a metal frame. A flame is generated and is run horizontally along the whole surface of the fabric.

The following parameters are observed:

- How long the fabric continues to burn after the flame is removed (after flame)
- Are there burning droplets falling from the burning fabric

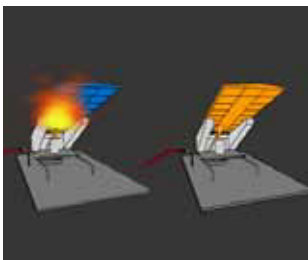
#### Step 3 – NF P92-505

This test must only be performed if there are burning droplets falling during the NF P92-503 and NF P92-504 test.

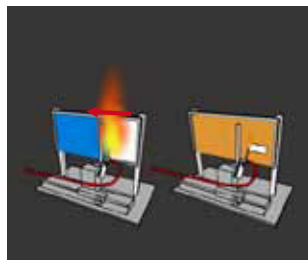
A fabric sample is placed horizontally under a metal sift. Burning heat is generated on the fabric causing burning droplets to fall from the fabric onto a cotton wool pad directly beneath it .

The following parameter is observed:

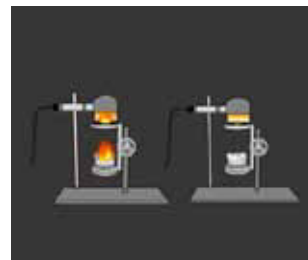
- Do the burning droplets ignite the cotton wool



Step 1 – NF P92-503



Step 2 – NF P92-504



Step 3 – NF P92-505

## Results

Following completion of the NF P92-503, NF P92-504 and NF P92-505, the fabric can be categorised as NF P92-507 and classified from M1 to M4. M1 being the highest standard of FR and M4 being the lowest.

M1:

- NF P92-503 the after flame is maximum 5 seconds
- NF P92-503 the width and length of burn damage is maximum 250 mm
- NF P92-504 the after flame is maximum 2 seconds
- NF P92-503, NF P92-504, NF P92-505 there are no burning droplets

M2

- NF P92-504 the after flame is maximum 5 seconds
- NF P92-503 the width and length of burn damage is maximum 350 mm
- NF P92-503, NF P92-504, NF P92-505 there are no burning droplets

M3

- NF P92-503 the width of the burn damage is maximum 90 mm
- NF P92-503, NF P92-504, NF P92-505 there are no burning droplets

M4

- If the fabric does not meet the criteria of M1, M2 or M3, it is automatically classified as M4 = not flame retardant/resistant