

FIRE-POOF™ FIELD TEST PROCEDURES FOR TEXTILES

These procedures are to be used if you would like to perform a, “Field Test”. If you chose to test samples, it is at your own risk. All safety guidelines must be followed to prevent life and property damage. Make sure that the area is free from draft and that there are no flammable items in or around the testing area. Have a certified fire extinguisher within reach. Tongs measuring a minimum of 8” should be used to hold the sample being tested. Make sure that while testing the sample, there is a 5-gallon pail of water below the sample so that the burned sample can drop into the 5-gallon pail of water safely.

Enclosed is NFPA 705 Field Flame Testing Procedures. This is used as a guideline by Fire Authorities to give them an idea of how decorative material will or will not burn. Use NFPA 705 Field Flame Testing Procedure after fabric has cured, (usually 24 hours after specimen has dried). Follow all safety precautions to ensure fire safety.

Listed below are instructions on how to apply Firepoof™ for testing purposes. This will give the applicator information as to how much flame-retardant must be applied and how long the cure time will be. Any shrinkage or dye stability should also be noted at this time. Please note that there are different test procedures for spandex. Please contact Firetect for information on spandex. Also, the most difficult fibers to treat are acetate, acrylic and nylon. Please see Firetect’s “Fire-Poof™ Flame Retardant Important Information for Soft-Goods”.

- STEP 1: Cut 3 pieces of fabric to be tested. Each piece should be a minimum of 10”x10”. Note size of pieces if testing for shrinkage as well.
- STEP 2: Label one piece with the date, time of application, job description and, “1 side”
 - Label the second piece with the date, time of application, job description and, “2 sides”.
 - Label the third piece with the date, time and, “not treated”. This piece will be the, “Control Sample” used to observe the difference between treated and untreated. This should also be kept with your files.

For safety precautions, chemical gloves, goggles and mask should be worn when testing and spraying.

- STEP 3: Using a spray bottle containing Firepoof™, spray the sample labeled, “one side” with Firepoof™ on the front side of the fabric. Observe how the Firepoof™ is absorbing and test for dye stabilization. If Firepoof™ absorbs to the back side of the fabric, this will be a good indication that only one side of the fabric will need to be treated in order to perform properly. Note how much needs to be sprayed, i.e. light, or heavy and also note how the fabric is reacting to the treatment.
- STEP 4: Follow the same procedures in step 3, but spray both sides of the sample on the one labeled, “two sides”.
The fabric needs to absorb the Firepoof™ on all sides; it does not need to be dipped or dripping.
- STEP 5: Note how long it takes for the samples to dry.
- STEP 6: Let cure for 24 hours in normal atmospheric conditions similar to the atmospheric conditions it will be used in. Average cure time is 24 hours before the flame-retardant will work, but sometimes, cure time can be longer.
- STEP 7: Using all safety precautions, follow NFPA 705, Field Flame Testing Procedures, test the performance of the Firepoof™ to verify which method of application works. The goal is that there should be no flame or orange glow when the match is removed from the specimen or the treated sample.

Cure time is important. This is why the fabric must be treated a minimum of 24 hours, (or as long of a period that is required for cure time) prior to occupancy of the premises to ensure fire safety.

Please call the Technical Support Department at Firetect® if you have any questions.

NFPA 705-FIELD FLAME TEST FOR TEXTILES AND FILMS

When performing this procedure, make sure testing is performed over a bucket of water. Never perform indoors; must be free from draft and away from flammable items. User assumes all risk and liability whatsoever. Must only be done by a trained fire official.

This is the procedure that Fire Officials use as a guideline only of the flame-resistancy of a particular item and should not be used to determine if a particular item will pass fire testing performed in a qualified laboratory.

Perform this test at your own risk following all fire and health safety procedures.

The more experience you have at this, the more accurate your results will be.

Specimens should be a **minimum** of 1/2"x4" using tongs to prevent burning of skin. Be careful not to burn clothing or sleeves. A large pail of water should be placed beneath the sample to catch burning or dripping samples.

The fire exposure should be from a common wood kitchen match or source with equivalent flame properties and should be applied for 12 seconds. Draft free & safely away from flammable materials.

Hold specimen vertical, at the center of the bottom edge and the bottom edge 1/2" above the bottom of the flame. Do not follow flame up the textile. After 12 seconds, move match gently away.

Requirements: During the exposure, flaming should not spread over the complete length of the sample or in excess of 4" from the bottom of the sample. Not more than 2 seconds of after flame. Breaking or dripping particles should not continue to burn after they reach the floor.

Warp, (length) & fill (width) may be tested depending on the situation.

VERTICAL VS. HORIZONTAL:

All flame testing must be performed using complete safety procedures.

The standard fire resistance tests are performed vertically. Some decorative materials installed horizontally may exhibit different burning characteristics. Therefore, they must be judged on an individual basis. Fire Marshals may perform additional tests, as he/she deems necessary to insure adequate fire resistance.

There is no correlation between the testing provisions found in NFPA 705 and the testing methods of NFPA 701. Field application of the NFPA 705 testing procedures is useful but must be used with good judgment and within limitations. Field tests should not be relied on as a sole means for ensuring adequate flame resistance of decorative materials. However, they are useful in augmenting a comprehensive regulatory program.

Disclaimer: Any person performing this test referenced above takes complete responsibility to comply with all safety practices and requirements and assumes complete responsibility for their own tests.

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