

Inspecta-Shield™ Fire Retardant

Inspecta-Shield™ is a versatile, broad spectrum, odorless, colorless, multi-use, penetrating, Class "A" fire retardant (For interior use only). Our pre-mixed product is Easy to use, Non-Toxic, Non-Allergenic and offers superior fire-retardant protection. UL Classified Insecta-Shield assures a quality controlled, invisible fire retardant ideally suited for economical commercial treatments of:

- Natural fibers
- Synthetic fibers
- Wooden building materials (lumber, etc.) and other wood products
- Upholstery
- Carpeting
- Draperies
- Decorative Products
- Paper
- Displays
- Stage curtains
- Mattresses
- And much, much more...

Correct Application rates should be established by a thorough series of evaluations before commercial scale treatment. Application rates may vary with weight, density and the building code for which treated materials are intended to comply with.

It is recommended that all items to be treated should be tested for: Flammability, acceptance, color fastness (dye running), general texture, shrinkage and appearance (i.e. a shiny fabric could be dulled). Make all tests on a scrap or in an inconspicuous area.

INSPECTA-SHIELD® Meets and exceeds all requirements to be rated as a fire-retardant by Federal, State, and locally acknowledged testing procedures. All specifications and suggestions appearing on our labels and in our literature concerning the use of our product are based upon tests and data believed to be reliable. Since the actual use by others is beyond our control no guarantee, expressed or implied, is made by N.Y. Fire-Shield, Inc. as to the effect of such use or the result to be obtained, the extent of liability of the manufacturer in all circumstances is the purchase price of the Insecta-Shield. For commercial use only. Not recommended for exterior use.

Independent testing standards have proven that Insecta-Shield provides unsurpassed fire-retardant protection and has been recognized by Fire Code Officials across the United States. Coverage rates shall be followed as recommended by the manufacturer and which have been established through independently recognized testing facilities and UL test criteria guidelines.

What is a Fire Retardant?

This can best be demonstrated by the use of a flame strip:

- A flame strip is 2" X 4" piece of paper treated with Insecta-Shield to the top half only and allowed to dry completely.
- Because the ignition point of paper is lower than the flame of a butane lighter (which burns between 350 and 400 degrees), untreated paper will support ignition upon contact.
- When the untreated portion of a flame strip is lighted (and put in a fire proof receptacle), and then self-extinguishes, it is due to the application of Insecta-Shield which has raised the ignition point of the treated portion of the flame strip to about 2500 degrees. (Propane torches burn at about 2500 degrees, butane burns at 1700 degrees, glass melts at 2500 degrees.)
- Insecta-Shield applications will not prevent charring, but treated items will not support ignition.

What is a "Class A" Fire Retardant?

The American Society for the Testing and Materials (ASTM) and the National Fire Protection Association (NFPA) are two nationally recognized organizations, which have developed flammability tests, setting standards of flammability. On a scale of 0 – 200 (least to most), only those materials with a flame spread of under 25 qualify as a "Class A" Fire Retardants.

Questions and Answers about Insecta-Shield™

What is Insecta-Shield?

Insecta-Shield is a durable, non-toxic, fire retardant chemical coating, which is carried, in an aqueous (water) solution. When completely dried and cured, it is both odorless and colorless, and is visible only under a long wave ultraviolet light. Insecta-Shield can be applied to a wide variety of items including carpeting, bedding, upholstery, draperies, paper and lumber. When properly applied, Insecta-Shield meets or exceeds the criteria for a "Class A" rating on most materials.

How is Insecta-Shield different from other fire retardants?

Insecta-Shield can treat both natural and synthetic materials. It is visible under long wave ultraviolet light so that the initial application and any need for reapplication can easily be checked. Insecta-Shield is UV stable and has been demonstrated to significantly inhibit sun fading and sun rot. Insecta-Shield dries to an invisible durable protective shield with no residue or rings to change the aesthetics of treated items. When dry, Insecta-Shield is non-corrosive to metal.

What is Sun-Shield?

Sun-Shield is Inspecta-Shield's UV stabilizing agent, which protects against damage from sun fading and sun rot. Many dark or rich colors, like red or navy, fade very quickly from exposure to the sun and are not economically viable decorating choices. In addition, exposure to the sun causes fabric to rapidly deteriorate. Sun-Shield significantly extends the life of treated fabrics as well as increasing decorating options.

Does Inspecta-Shield work on everything?

No. Inspecta-Shield only works on items that are absorbent or that will allow Inspecta-Shield silica's to adhere to them. In other words, Inspecta-Shield can only treat items it can reach. An easy test is to apply a drop of water to the surface of the material. If the water does not bead up, the items can be treated with Inspecta-Shield. Because of its unique penetration formula, Inspecta-Shield is able to effectively retard lumber and many fabrics previously coated with a soil repellent.

Is Inspecta-Shield safe to use?

Yes! It's very simple. Carefully spray Inspecta-Shield with a small lightweight sprayer, being sure to cover all exposed surfaces. As soon as Inspecta-Shield is completely dry, it works! After application is completed, fill out and sign the application for certificate of flame resistance form enclosed with the product and return it to N.Y. Fire-Shield. Upon satisfactory review, your Certificate of Flame resistance will be issued.

How often does Inspecta-Shield need to be reapplied?

Inspecta-Shield is extremely durable and will not wear off under normal use and normally will withstand numerous dry cleanings. However, there can be a slight loss of Inspecta-Shield in washing. Reapplication is recommended after washing to maintain flame retardancy.

How much does Inspecta-Shield cost?

Inspecta-Shield is an inexpensive method of fire protection considering that fire causes many needless deaths and billions of dollars of damage in property losses every year. A gallon of Inspecta-Shield covers an average area of 500 sq. ft. for textiles and 300 sq. ft. for lumber, depending on material fibers and lumber thickness. Inspecta-Shield virtually protects your valuables and irreplaceables for pennies!

Advantages of Inspecta-Shield™ over other Fire Retardants

- U.L. Classified Listing No. 79P1
- Non-Toxic and Non-Allergenic
- Treats both natural **and** synthetic materials, as well as lumber and wood products.
- Meets or exceeds governmental criteria for a Class "A" Fire Retardant on most materials.
- Durable: will not wear off under normal use and normally will withstand numerous dry cleanings. Allows fibers to breathe.
- Sun-Shield, a UV stabilizer, drastically reduces sun fading and sun rot, increasing decorating options and fabric life.
 - Visible only under long wave UV light.
 - Odorless and colorless.
 - Treated items maintain tensile strength.
- Leaves no uncomfortable residue or unsightly salt rings after treatment.
 - Non-corrosive to metal **when dry**.
- Ready to use: no mixing required (Quality Control).
 - Economical.

UL TESTING

REQUIREMENTS

The basic standard used to investigate products in this category is [ANSI/UL 723](#), "Test for Surface Burning Characteristics of Building Materials."

GENERAL

NEW YORK FIRE-SHIELD (Inspecta-Shield) UL FILE # R13492

This category covers coating materials Classified as to their surface burning characteristics as applied to the specific interior surfaces and the specific coverage rates indicated in the individual Classifications. The flash points (closed cup method) of the coatings are also indicated in the individual Classifications.

To be eligible for Classification, the surface coating or coating system must reduce the flame spread of Douglas fir or red oak and all other tested interior combustible surfaces (having flame spreads of 100 or greater by test) to which it is applied at least 50% or to a flame spread Classification value of 50 or less, whichever is the lesser spread of flame. A coating or coating system may be Classified as applied to other surfaces (having flame spreads of less than 100 by test) after its eligibility as a fire-retardant coating or coating system has been established as applied to Douglas fir or red oak, with the requirement that the flame spread Classification must not exceed a value of 50 to be eligible for Classification.

The surface burning characteristics are applicable only when the coating is applied at the rates of coverage and to the type or kind of surfaces indicated, when the coating is applied in accordance with the directions supplied with the container, and when the coating is maintained.

Typical combustible surfaces indicated in the individual Classifications are Douglas fir, red oak, cellulose acoustical tile, cellulose board, and oriented strandboard (OSB). The Douglas fir substrates consist of nominal 1 by 4 in. finished tongue-and-groove flooring. (The flame spread of the uncoated Douglas fir is 70-100.) The red oak substrate consists of nominal 23/32 in. select grade tongue-and-groove flooring, which is used in the calibration procedure for the test equipment.

The cellulose acoustical tile substrates consist of nominal 12- by 12- by 1/2 in. tongue-and-groove "Factory Finish" (starch type) perforated tiles. (The flame spread of the cellulose tile substrates is normally in excess of 150.)

The cellulose board substrates consist of nominal 10- by 48- by 1/2 in. square edge "Factory Finish" (starch type) unperforated boards. (The flame spread of the cellulose board is normally in excess of 75.)

The oriented strandboard substrates consist of a nominal 3/4 in. thick 24 in. wide by 96 in. long board. (The flame spread of the oriented strandboard is normally in excess of 150.)

Unless otherwise indicated in the individual Classifications, cellulose board and cellulose tile substrates are supported for the tests attached to wood furring strips.

Typical noncombustible surfaces indicated in the individual Classifications are 1/4 in. thick inorganic reinforced cement board (flame spread 0) and gypsum wallboard (flame spread 15).

Fire-retardant coatings may be tinted in the field provided compatible tints are used in a proportion not exceeding 2 oz. of tint per gal. of coating. Deeper shades may or may not be supplied by the individual manufacturers.

The Classifications are confined to the materials themselves and do not pertain to the structures on which the materials are installed.

The toxicity of the products of combustion and other properties have not been investigated.

The useful life of these coating materials has not been investigated; however, it is of paramount importance that the coatings be maintained for continued effectiveness.

Authorities Having Jurisdiction should be consulted before application.

Flame Retardant Performance Standards

North American

- Fed. Test Method 191A - method 5903
 - DOT MVSS-302
 - Fed. Spec. PPP-F-320D fiberboard, corrugated & solid sheet stock
 - NFPA - 701 Large Scale Tests
 - NFPA - 701 Small Scale Tests
 - ASTM Standard Method of Test E 648-84
 - ASTM-E-84 Test on Olefin Wall Covering
 - 94HB Flammability Test on Particle Board
 - Bursting Strength Test on Corrugated Board
 - OSU Heat Release Test
 - ASTM-E-84 Test on Pine Lumber
 - ASTM-E-162
- NFPA 255 Standard Method of Test of Surface Burning Characteristics of Building Materials
 - UL 723 Test for Surface Burning Characteristics of Building Materials
 - UBC 42-1
 - FAA Vertical & Horizontal
- CAN 2-4.2 M77 (Canadian Standard for Flame Resistance and Combustion of Textiles) by Warnock
 - MEA# 311-90-M Vol.II
 - ASTM D 3597-Abrasion (Cotton)
 - ASTM E 143 - Static Bend (Douglas Fir)
 - ISO - 5657
 - CSFM Title 19-1237 & 1237.1
 - N.Y.F.D.C. of A. No. 5020
 - N.Y.F.D.C. of A. No. 5024
 - NFPA 253
 - NASA - WSTF #90-23883 (A&B)
 - WHB 8060.1B (coverall textile)
 - CSFM listed C-153.01 Textile
 - CSFM listed 1224.100 Lumber
 - U.S.C.G.
- Carbon ARC Exposures DOT method SAE 1885 (Automotive Textile)