

Selection & Specification Data

Description	An innovative environmentally friendly clear fire retardant for applications over water absorbent materials. Water-based and non-toxic. For interior use only; this product has not been tested for exterior applications. Not for use over non absorbent substrates. See "Limitations" for details. READ ENTIRE DOCUMENT BEFORE APPLICATION.
Key Features	<ul style="list-style-type: none"> • Penetrative clear chemical treatment for wood and fabric. • Fire is limited to its initial fuel source; treated materials will not ignite or spread flame, afterglow is eliminated. • 3rd Party tested and certified to a multitude of fire test standards. • Soft hand on textiles and leather, preserving natural look and finish of material. • Excellent coverage rate, requiring less product to protect more material. • Easy application & clean up; colorless and odorless. See "Application" for more details. • Non-Hazardous. Free of bromides, halogens, organic compounds and other banned substances.

Physical Data

Appearance	Clear to slightly hazy liquid
Density	10.21021 lb/gal
Specific Gravity	1.22345
pH	6.7
Water Solubility	Complete
Odor Description	Odorless
VOC	0.08% or 800 ppm

Testing / Certification

Listing FlameOFF FR Clear is UL Certified for UL 723/ ASTM E-84 Test for Surface Burning Characteristics of Building Materials. See UL Directory for additional information.



*See UL Fire Resistance Directory R40252

Standards Tested to

- ASTM E84/UL 723
- NFPA 701

Additional fabric test Standards:

- ASTM D6513-15 Vertical Flame Resistance
- CAN/ULC-S109, Small Flame
- NFPA 701 Flame Propagation of Textiles
- CCR Titles 19, Sec. 1237.1 Flame Resistance
- Far 25.853 Compartment Interiors
- NFPA 705 Field Flame Test
- Can/ULC-S109, Large Flame
- NFPA 260 Cigarette Ignition
- UFAC 1990 Fabric Classification
- ASTM D2859 Ignition Characteristics of Finished Textile Floor Covering Materials

Packaging, Handling & Storage

Shelf Life 12 Months

Shelf life when kept at recommended storage conditions (45-105° F/7-40°C, indoors, dry) and in original unopened containers.

Packaging 32 oz, 1 Gal, 5 Gal

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Application Information

Substrate	Strength	Dilution FR Clear: Water	Application Method
Wood	100%	None	Spray
Natural/ Cellular Fibers	50%	1:1	Spray
Leather	50%	1:1	Spray <small>*Back of hide. Do not spray face/grain.</small>
Natural/ Synthetic Blend	100%	None	Spray

Coverage Rate 300 sq ft/gallon at full product strength

Curing During the drying process, keep temps below 160°F. Test infrared heat drying exposure before use, as this may cause chalking.

How To Apply **APPLICATION METHOD:** FR Clear should be applied using a simple hand held pressure pump sprayer, of the kind used for garden/yard chemicals. Product should be sprayed in a mist until the surface is lightly damp to the touch. It is better to apply two light coats than 1 heavy coat. Do not over apply this product, as chalking will occur on the surface of the material.

*For OEM Applications, FR Clear may be applied using a size press, pad, dip, shower spray, or spray bottle application. Do not overapply. Do not allow product to pool.

How To Apply

FOR WOOD APPLICATIONS: Apply FR Clear at full strength at a rate of 300 sq ft/gallon. It is recommended to first apply product to a small area of the wood in order to verify the suitability of the species of wood to accept the product without visual issues in appearance after application. Absorption/penetration rates will vary depending on the material in question. Some wood species may absorb the product more readily than others. For testing purposes, the acceptable moisture content of untreated wood prior to application is 6-8%. Overcoating: When a final decorative finish is required, substrate must be fully dry before application of topcoat. Apply topcoat to manufacturer's instructions. A small area of the substrate should be tested for compatibility before the topcoat is applied.

TEXTILE APPLICATIONS: A small fabric sample should be processed with FlameOFF FR Clear in order to test the suitability of the material to accept the product with no damage to the finish/appearance of the textile. Many fabric applications can be diluted 1:1 with water. Field tests may show that FR Clear maintains effectiveness over some textiles at even lower concentrations. In such cases, the customer may perform additional testing to verify the suitability of a reduced concentration for their specific textile. Fabric content will influence the amount of product required for successful treatment. It is recommended to create several samples at different application rates, when preparing for a fire test, to determine the best application rate for your specific application. Some fabrics may not readily absorb the product depending upon the presence of synthetic fibers. Overapplication of the product may cause staining and/or stiffening of the fabric. Dark fabrics may be more likely to show chalking if over applied or applied vertically where product can settle to the bottom.

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Warning & Limitations

This product does not function as a clear paint, varnish, or lacquer. It is a penetrative chemical treatment that must be absorbed into the material in order to work properly. Improper use over non absorbent/porous materials may result in chalking, staining, tacky texture, and inadequate protection from fire.

It is recommended to protect the surrounding materials during application. Overspray may stain non porous materials. Protect mirrors, concrete, metals, decorative and polished surfaces.

The substrate must be absorbent. It may be possible to apply to previously painted or varnished wood if completely sanded back to the original surface.

Not suitable for applications over:

- previously painted/varnished surfaces
- veneer panels
- artificial wood
- plastic coated materials
- materials that will routinely be exposed to water.
- Fabrics that have been treated with a waterproofing treatment, and/or other high performance sealing treatments

Chalking on the surface of a treated material indicates either poor absorption or overapplication. For wood applications, lightly sanding the surface will remove excess deposits.

For interior use only. This product has not been evaluated for exterior applications. Any exterior application should be seen as temporary and does not guarantee performance to a specific test standard.

This product is classed as non-hazardous. The use of PPE is good practice and recommended.

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