

Frequently Asked Questions: Intumescent Fire Protective Coatings

Q. What is No-Burn®?

No-Burn® is a line of intumescent, fire retardants and dual purpose coatings.

Q. What is an intumescent coating?

A substance which expands as a result of heat exposure, creating a char-barrier, protecting the coated substrate or surface from flame.

Q. Which No-Burn® products are intumescent?

Plus, Plus ThB, Plus XD, Plus Mih and Plus XTR.

Q. Where can I find more information about each product?

Visit the [intumescent coatings](#) page of No-Burn®, Inc.'s website or contact the manufacturer's office and ask for sales.

Q. How do I know the product will work?

Each Evaluation Report, Evaluation Listing and Engineering Report issued to No-Burn®, Inc. verify the products have been tested to show compliance with specific requirements of the international (I-Codes), national, state and local code requirements. Of the utmost importance is the acknowledgement that No-Burn®, Inc.'s products are manufactured in ISO 9001:2008 facilities, under additional third-party inspections as an Evaluation Report and Evaluation Listing holder. When you purchase and install No-Burn®, Inc.'s products, be assured the chemistry and performance quality are as tested because No-Burn®, Inc. is continually audited by independent third-parties.

Q. Is it possible to use No-Burn® in any other applications other than those listed on the website or in the literature?

Examples of acceptable applications have been given for your benefit in manufacturer's literature. For specific questions, please [contact](#) the manufacturer's office and ask for sales.

Q. How are No-Burn®, Inc.'s intumescent coatings installed?

The coatings are primarily spray-applied. Other methods of application include roller or brush. Refer to product Evaluation Report ([ER 305](#)), Evaluation Listing ([UEL 5005](#)) and each product's technical data sheet (TDS) for further information.

Q. Do propane or gas and radiant heaters produce sufficient heat activating the intumescent coating(s)?

No.

Q. In the event a No-Burn® intumescent coating is inadvertently activated, what should subsequently occur?

Simply, remove any char and apply new No-Burn® material to the area where the char was removed. A third-party opinion as to whether the substrate remains functional may be necessary.

Q. Have No-Burn® intumescent coatings been evaluated for building code conformance?

Yes. No-Burn®, Inc.'s [ER 305](#) and [UEL 5005](#) address fire protective coatings, such as surface burning characteristics (ASTM E84/ASTM E2768 extended 30 minute duration), alternate ignition and thermal barrier as well as meeting other code prescribed fire performance requirements.

Q. What are No-Burn® intumescent made from?

No-Burn® intumescent are proprietary and patent pending formulations; copies of (M)SDS are available online at www.noburn.com.

Q. Who installs No-Burn®?

No-Burn® is installed by certified applicators in accordance with the manufacturer Evaluation Report, Evaluation Listing and Evaluation Reports where No-Burn® is included. Manufacturer technical data sheets (TDS) are also available for reference.

Q. What is the cost for No-Burn®?

Certified applicators will provide an installed price. Pricing may be based on the total surface area represented as an installed cost per square foot and is competitive with other code options.

Q. Who are No-Burn®, Inc.'s certified installers?

Clients may select installer(s) from a national network. Specializing in the installation of No-Burn® products, installers may also specialize in the installation of other building product materials, such as insulation, fireproofing, etc. For specific questions, please [contact](#) the manufacturer's office and ask for sales.

Q. What is provided by the certified installer to certify the application of No-Burn®?

In accordance with [ER 305](#) or [UEL 5005](#), the certified applicator will provide an installation certificate. A No-Burn®, Inc. issued label may also accompany the certified installation certificate as required by ER 305.

Q. What's the typical material lead time? What's the typical turnaround time for installation?

As a US based manufacturer, lead times are often shorter than expected. No-Burn®, Inc. strives to meet your personal and project expectations. Certified applicators are nationwide, providing the installation of No-Burn® that aligns with your scheduling needs.

Q. What if a structural or non-structural building material, where No-Burn® was applied, requires replacement?

If the building material requires replacement, No-Burn® will need to be installed on the replacement material.

Q. What is the fire rating of No-Burn®?

Ratings may be referred to as fire performance ratings. Rated for building code compliance fire performance, all No-Burn® intumescent are seen as rated. For further information, please refer to [ER 305](#), [UEL 5005](#) or [contact](#) the manufacturer's office and ask for technical support.

Q. At what wet film thickness do the coatings need to be applied?

Examples of acceptable application rates have been given for your benefit in manufacturer's literature. Wet film thicknesses for acceptable applications are specified. For specific questions, please [contact](#) the manufacturer's office and ask for technical support.

Q. Are there temperature restrictions for the installation of No-Burn® intumescent?

Yes. Temperature requirements shall be maintained during application ([ER 305](#) Section 4.1 or [UEL 5005](#) Section 3.1). Cure time is 24 hours; however, temperature requirements are not required to be maintained for 24 hours. Verification of all installation requirements is the responsibility of the certified installer.

Q. What can I expect when an installation is complete?

Intumescent coatings will result in a distinctive white color free of visual voids. An installation certificate and tags are provided at job completion.

Q. Is the coating durable?

Yes. No-Burn® intumescent are water-based, interior coatings that are considered specialty because their function is providing passive fire protection; however, they may be generally considered an interior, matte, low VOC, latex paint.

Q. How is No-Burn® used to meet the building code(s)?

In accordance with [ER 305](#), No-Burn® may be installed to meet the following fire performance requirements: fire resistance, non-prescriptive thermal barrier, non-prescriptive ignition barriers and surface burning characteristics for interior finishes.

Furthermore, No-Burn® may be installed in accordance with [UEL 5005](#) to meet surface burning characteristics (ASTM E84/ASTM E2768 extended 30 minute duration).

Q. What test procedure was used to determine how No-Burn® intumescent meets the building code(s) and green building standards?

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|--|------------------------|
| - AC257 | - CDPH (CA Spec 01350) |
| - AC377 | - CHPS |
| - AC456 | - CSFM: 2280-2014:0100 |
| - ANSI/ASHRAE/USGBC/IES Standard 189.1 | - EC017 |
| - ASTM A653 | - GSA PBS-P100 |
| - ASTM D2915 | - ICC/ASHRAE 700 NGBS |
| - ASTM D5055 | - IgCC |
| - ASTM E84 | - LEED v3 2009 |
| - ASTM E84, 30 min | - LEED v4 |
| - ASTM E96 | - NFPA 255 |
| - ASTM E119 | - NFPA 286 |
| - ASTM E1623 | - SCAQMD Rule 1113 |
| - ASTM E2768 | - UL 723 |
| - CAN/ULC S102 | - UL 1715 |
| - CARB | |

For example, the test procedure and results repeatedly demonstrated No-Burn® Plus applied to an I-joint is [equivalent](#) to 2x10s. The test method and procedure for demonstrating this equivalence is documented in ASTM E119 and design criterion or Evaluation Criteria EC017:

- Conducted in accordance with ASTM E119 or the equivalent UL 263.
- Tested with a maximum-load condition unless limited design criterion was specified, such as a reduced-load condition.
- Coating shall not degrade member or component performance or corrode metal fasteners.
- Coating durability: Class III vapor retarder (permeable), has no loss of adhesion, visual degradation or performance when exposed to elevated temperatures and moisture.

Q. Does No-Burn® Plus provide I-joints equivalent protection to that of 2x10 solid sawn joists?

Yes. Representative assemblies were tested by accredited or certified testing laboratories using Evaluation Criteria (EC) 017 procedures, which include standardized ASTM E119 fire resistance protocol. Proprietary test reports were reviewed and accepted by the Evaluation Service IAPMO UES, demonstrating equivalence as required by Exception 4 of R302.13 (2015) and Exception 4 of R501.3 (2012).

Q. Do No-Burn® intumescent increase smoke toxicity compared to the base material's smoke toxicity?

No. No-Burn® reduces the spread of flame and smoke developed. In the unfortunate event of a fire, No-Burn® limits the fire's ability to consume the material; therefore, the smoke developed and smoke toxicity may be considered less threatening.

Q. Does typical swelling and shrinkage of wooden substrates impact No-Burn® Plus?

No. As a Class III vapor retarder, No-Burn® does not restrict or limit the amount of moisture that passes through a material or assembly.

Q. Are there any compatibility issues with typical sealants and termite treatments or other products it may come into contact with inside the home?

No-Burn® intumescent coatings should be installed in accordance with manufacturer instructions. In most cases, No-Burn® will be the finish coat on the substrate, which given the intended end-uses, may likely have limited to no contact with typical sealants, termite treatments or other products. As a water-based specialty coating, no special care is necessary once No-Burn® is in place.

Q. How long will the product last in a “real” fire?

All No-Burn® products have been tested in accordance with international standardized fire conditions, most notably ASTM E119 for fire resistance. Rated and non-rated assemblies, where No-Burn® Plus was applied to structural members, performed equivalent in quality, strength, effectiveness, durability and safety or met the fire performance standard prescribed in the International Building Code® (IBC®), International Residential Code® (IRC®), National Fire Protection Association® (NFPA®), etc. and the testing protocol of international standards, such as those previously listed above.

Q. Does the product give off gases during curing or once cured?

Intumescent manufactured by No-Burn®, Inc. may be considered interior specialty coatings or paints. They do contain typical coating or paint particulates classified by the Occupational Safety Hazard Association (OSHA) as non-hazardous, possible irritants, if inhaled while curing. Post curing, the intumescent(s) are inactive or static. In the case of activation, the intumescent(s) reduce the amount of smoke, by ceasing and limiting the spread of flame, by more than 50%. Intumescent manufactured by No-Burn®, Inc. comply with strict VOC content and emissive regulations and green building standards.

Copies of (M)SDS are available online at www.noburn.com.

Q. Does No-Burn® reduce structural design values?

No. The application of intumescent coatings does not negatively affect mechanical properties of the substrate.

Q. Are No-Burn®, Inc.’s intumescent water-resistant?

The intumescent will resist certain amounts of water. As an interior, latex coating, No-Burn® intumescent should have limited exposure to continuous wetting. If the substrate where No-Burn® has been applied becomes compromised as a result of moisture, reapplication shall be necessary once the damaged substrate is reinstalled.

Q. When applying No-Burn® Plus to first floor I-joists, why are the exposed joists and subfloor sprayed?

Tested to comply as an equivalent material to what is prescribed in the residential code, equivalence was established when all the exposed surfaces of the joist and subfloor are sprayed. No-Burn® Plus sprayed to the joists and subfloor protects structural components in a more complete manner when compared to other options.

Q. Do penetrations affect No-Burn® Plus?

Penetrations or openings for ducts, vents, electrical outlets, lighting, devices, luminaries, wires, speakers, drainage, piping and similar penetrations or openings do not compromise the performance.

Q. Are special I-joist hangers required?

No. Standard hangers may be used.