

Fire Protective Coating

DESCRIPTION

NoFire® is a one-part non-flammable water based intumescent fire-retardant coating similar in appearance to ordinary latex base paint. Upon exposure to flame or heat at temperatures in excess of 200°C (400 °F), it immediately foams and swells (intumesces) providing an effective insulation and heat shield to protect the subsurface, even at temperatures in excess of 1090°C (2000 °F).

FEATURES

- Water Base
- Non-Toxic
- Environmentally Safe
- Easy to apply to many types of surfaces and substrates
- Can be applied by brush, roller or spray
- Effective protection up to 1090°C (2000°F)
- Available in many colours

RECOMMENDED USES

- **Residential and Commercial** – walls, ceilings, wallboard, utility closets
- **Industrial** – warehouses, utility rooms, pipes, structural steel, composites
- **Transportation** – buses, trains, aircraft, ships
- **Military** – vehicles, ordinance cases
- **General applications** -- Homes, Offices, Banks, Strong Rooms, Factories, Electrical rooms, Power stations, Server & UPS rooms, Data Centers, Generator & Engine Rooms, Chemical & Paint Stores, AC Rooms, Flammable Chemical & Fuel Holding Tanks, Electricity Poles, Electrical Cables, Wooden & Steel Structures, Fiber & Plaster board, Ceilings, Bulkheads, Composites, Escape Routes, Fire prone areas in buildings, installations, facilities etc.

SPECIFICATION DATA

- **Finish** -- Flat
- **Color** -- Standard white. Also available in many tints
- **Viscosity** -- 85 – 115 KU
- **Solids** -- 63%
- **PH** -- 8.0 - 8.5
- **Weight** -- 5.0 kg - 5.2 kg/gallon
- **Drying time** -- 1 - 2 hours (dry to touch)
12 - 24 hours (full cure)
- **Re-coat** -- 1 - 2 hours (dry to touch)
- **Shelf Life** -- Minimum 4 years
- **Flash Point/Flash over** -- None
- **Flame spread** -- Zero
- **Combustibility** -- Not combustible
- **Durability** -- Resistant to Mold, UV, Aging, Humidity
- **Toxicity** -- Non toxic
- **Smoke** -- Zero
- **Fire Rating** -- Up to 120mins (depending on the details of the assembly or the substrate)

TYPICAL COVERAGE

24.8 Sqm Per Gallon -- (at 6 mils / 152 microns wet) -- 124 sqm/Pail or Bucket

5.9 Sqm Per Gallon -- (at 25 mils / 635 microns wet) -- 29.5 sqm/Pail or Bucket

Depending on the mode of Application

ONE BRUSH COAT Applies up to 5 mils / 127 microns wet film thickness

ONE ROLLER COAT Applies up to 8 mils / 203 microns wet film thickness

ONE SPRAY COAT Applies up to 25 mils / 635 microns wet film thickness

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SURFACE PREPARATION

The surface should be clean and dry, free of dirt, oil, loose scales or paint and other foreign matter. On porous surfaces or flaky rusty surfaces, loose flakes and/or rusty scales must first be removed by scraping and a proper surface suitable for application of the coating restored. New or Unpainted Surfaces: Priming is usually not required for wood, wood products, or wallboard, depending on surface conditions. Metals and composites, especially glossy surfaces may require priming. Rusting metal should be primed with a rust inhibiting primer. Painted Surfaces: Priming is usually not required for latex, acrylic latex or alkyd painted surfaces. Enamel painted surfaces must be sanded and/or primed or removed prior to painting.

PRIMERS AND TOPCOATS

- **Primers must be alkyd or oil base.** Not acceptable are water base or two-part primers (such as epoxies or 2-part urethanes).
- **Topcoats** (required for exterior application) – alkyds, urethanes, 2-part epoxies are acceptable. Some Enamels are acceptable.

APPLICATION GUIDES

Due to possible settling of contents during shipping and storage, the product should be thoroughly mixed from bottom to top of the container. No thinning of any kind is recommended. A 5-gallon pail of NoFire can be adequately prepared using a 3/8 inch drill with an appropriate mixing tip, and mixing for at least 5 minutes. This procedure should be repeated each day the coating material will be used.

NoFire A-18 can be applied using airless or conventional spray equipment. The product can be applied to the desired thickness usually in one application of up to 25 mils (625 microns) wet. Do not apply when the air temperature or temperature of the surface being coated is below 40°F (5°C), or the relative humidity is above 85% or during times of any precipitation or when precipitation is expected within twenty-four hours (for exterior applications). After proper mixing and surface preparation, apply the product directly from the container. Coat evenly and thoroughly over surface to be coated with a natural bristle brush or roller. Any chips, cracks or thinly coated areas can be “touched up” upon inspection. Do not apply multiple coats until the surface is completely dry as specified above. Do not apply when the air temperature or temperature of surface being coated is below 40° F (5° C). Do not apply when the relative humidity is above 85% or during times of any precipitation or when precipitation is expected within 12 hours (for exterior applications). For best results use any good quality bristle brush or 3/8” to 1/2” nap roller cover. The number of coats depends upon the total thickness needed to reach the specifications of the application. Be sure that the entire surface is thoroughly coated to a thickness equal to or greater than the minimum required on all areas of the surface, especially areas that are usually not immediately visible, such as joints or underneath overhangs.

Drying time - depends upon the ambient temperature, relative humidity and applied thickness.

Approximately two hours of drying time is required when temperature is 70° F (21°C) and relative humidity is below 40% and coat is 8-9 mils (200 – 225 microns) wet. Lower temperatures, higher humidity or thicker coatings will require longer dry time. Curing time is 12 - 24 hours depending on ambient temperature and humidity. Drying may be accelerated with gentle heated airflow lower than 82° C / 180°F.

Additional coats may be applied when dry to the touch.

Clean all equipment immediately after use with water. If product has accidentally dried on equipment, use soapy warm water to clear residue. Do not use any harsh chemicals or abrasives.

HEALTH AND SAFETY

- **Use with adequate ventilation.** Do not breathe vapors or spray mist. Wear an appropriate, properly fitted respirator (NIOSH/MSHA) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable limits. Follow respirator manufacturer's directions for respirator use. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
 - **FIRST AID:** In case of eye contact, flush immediately with plenty of water for at least 15 minutes and get medical attention; for skin, wash thoroughly with soap and water. If affected by inhalation of vapor or spray mist, remove to fresh air. Do not take internally. If swallowed, get medical attention. Keep out of reach of children.
 - **Keep container closed when not in use.** In case of spillage absorb with inert material and dispose of in accordance with applicable regulations.
 - Clean up with soap and water.
- For further information refer to Material Safety and Data Sheet (MSDS)

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STORAGE

- Do not open pail until ready for use. After opening, remaining material must be kept in tightly closed pail or container.
- Keep from freezing.
- Shelf life – 48 months minimum in original, unopened container.

DISPOSAL

Dispose paint waste in accordance with the Environmental Authority.

WARRANTY AND QUALITY ASSURANCE

Genuine NoFire coatings, manufactured by NoFire Technologies, Inc and distributed by an approved distributor, are warranted to be free from defects in material and workmanship, and in compliance with NoFire Technologies' Quality Assurance Program and NoFire Technologies' published specifications, including all independent tests and approvals as provided by NoFire Technologies' Technical Manual for 4 years after date of manufacture, provided the coating is stored in its original, undamaged and unopened container. Any alteration of the coating voids the warranty and approvals.

PACKAGING

Standard packaging of NoFire coatings: 5-gallon pails or 50-gallon drums.

ENVIRONMENTAL INFORMATION

NoFire Coatings are nonflammable, nontoxic, nonhazardous, and environmentally friendly.
VOC (volatile organic compounds) -- 2.2 grams/liter.