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FireGuard E-84

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Intumescent Fireproofing Paint for Passive Fire Protection

FireGuard E-84

Affordable, Proven Performance

Endurance, Flame Spread, and Smoke Index Tested
1 & 2-hour Wall Assembly Rated | **1-hour Floor and Ceiling Rated**
Structural Steel and Spray Foam Insulation

Formulated to Meet Test Standards

UL 263 / UL 723 / ASTM E-119 / **ASTM E-84** / ASTM E-2768/ UL 10B
NFPA: 251 / NFPA: 255 / NFPA: 703 / NFPA: 252
ULC S101 / ULC S102 / UBC 8.1 / UL 1715 / UBC 26-3 / UBC 7-1
Alberta Fire Code Article 5.6.1.2

FireGuard E-84 intumescent coating is less expensive than other construction solutions (as low as \$0.75 per square foot) and the spray application allows for projects to be completed in less time. It creates a fire-retardant and fire-resistant barrier for a wide range of construction and decorative materials.

FireGuard E-84 is easily applied to sheetrock, **oriented strand board (OSB)**, sheet metal, PVC, steel, and interior and **exterior woods**. It has been tested and listed by **Guardian Fire Testing Laboratories, Inc** and is **certified for achieving duration and flame spread ratings on various assemblies and substrates**.

Water-based and nontoxic, this intumescent coating is applied just like standard paints. FireGuard E-84 can be applied by rolling, brushing, or spraying. As little as **two coats** can create a fire-rated wall for your structure.



How FireGuard E-84 Works to Provide Passive Fireproofing Protection for Structures

When exposed to fire, FireGuard E-84 expands by a factor of 50 to 70 times its original thickness. This generates an ash-like char layer that provides thermal insulation to the material beneath the intumescent coating. The char layer is considerably more effective than traditional insulating and fireproofing materials in minimizing the exposure of the underlying substrate to temperatures that would allow for further combustion.

As a result, the rates of combustion and generation of smoke are substantially reduced, increasing egress time. In addition, the fire is usually contained to the room of origin which helps to maintain structural integrity and minimizes property damage.

Applications for FireGuard E-84

FireGuard E-84 can be used on existing structures to bring them into [compliance with building and fire codes](#), or as a tool in new construction. E-84 can address code requirements where structural load weight, space, or other special concerns cannot be satisfied by more traditional means of [achieving fire-rated assemblies](#). As an added benefit, this intumescent coating also offers a cost-effective solution; it is available at a fraction of the cost of other materials that protect against flame and smoke spread.

FireGuard E-84 has been used in a variety of buildings and structures, from residential structures to industrial and [business buildings](#). Because FireGuard E-84 can be applied directly onto original surfaces, it is a perfect solution for protecting and preserving historical structures against fire damage. With the use of [FireGuard Z-1 Tie-Coat](#), a specially formulated transitional coating, [FireGuard E-84 Intumescent Coating](#) can be top-coated with a wide variety of water-based finishes including flat, semi-gloss and satin paint to achieve a seamless finish in any color or sheen. (please see manufacturer's guidelines for more information).

For buildings that have already been constructed, FireGuard E-84 offers a method of achieving a fire-rated assembly with minimal disruption to the existing occupants of the building. Application is both quick and easy. In some cases after coating a substrate with FireGuard E-84, an additional coat can be applied during the same day as the initial application. The total curing process will take up to 7 days; however, the coating will dry to the touch quickly, allowing for use and occupancy while the coating cures completely.

FireGuard E-84 Is Perfect for a Wide Variety of Surfaces and Assemblies

Wood and Gypsum Floor/Ceiling and Wood Roof Assemblies

1-hour Floor/Ceiling Assembly: [FC1](#) | [FC2](#) | [FC3](#) | [FC6](#) | [FC7](#) | [FC8](#)

2-hour Floor/Ceiling Assembly: [FC4](#) | [FC9](#)

1-hour Wood Rafter Floor Assembly: [FW1](#) | [FW2](#) | [FW3](#) | [FW4](#) | [FW5](#) | [FW6](#) | [FW7](#) | [FW8](#) | [FW9](#) | [FW12](#)

2-hour Wood Rafter Floor Assembly: [FW10](#) | [FW11](#)

1-hour Roof Assembly: [R1](#)

Wall Assemblies

1-hour Wall Assemblies (Wood Framed): [W1](#) | [W2](#) | [W3](#) | [W12](#)

2-hour Wall Assemblies (Wood Framed): [W4](#) | [W5](#) | [W6](#) | [W7](#) | [W8](#) | [W9](#) | [W10](#) | [W11](#) | [W13](#)

1-hour Wall Assemblies (Steel Framed): [S1](#) | [S2](#) | [S3](#)

2-hour Wall Assemblies (Steel Framed): [S4](#) | [S5](#) | [S6](#) | [S7](#) | [S8](#) | [S9](#) | [S10](#) | [S11](#)

1,2,3-hour Wall Assemblies (Masonry Concrete): [CW1](#)

Structural Steel Assemblies

1-hour Steel Column and Beam: [ST1](#) | [ST3](#) | [ST5](#) | [ST7](#) | [ST9](#) | [ST10](#) | [ST11](#) | [ST13](#) | [ST15](#) | [ST17](#) | [ST19](#) | [ST20](#)

2-hour Steel Column and Beam: [ST2](#) | [ST4](#) | [ST6](#) | [ST8](#) | [ST12](#) | [ST14](#) | [ST16](#) | [ST18](#)

1-hour/2-hour Intumescent Patch for Cementitious fireproofing: [P1](#)

Structural Steel and Concrete Assemblies

1-hour Steel and Concrete Assembly: [ASM-1-1](#) | [ASM-1-2](#) | [ASM-1A](#) | [ASM-1B](#) | [ASM-5](#) | [ASM-6](#) | [ASM-7](#) | [ASM-8](#) | [ASM-9](#)

2-hour Steel and Concrete Assembly: [ASM-2](#) | [ASM-3](#) | [ASM-4](#)

Thermal Barrier Assemblies

Thermal Barrier: Open Cell Spray Foam Insulation: [F1](#)

Thermal Barrier: Closed Cell Spray Foam Insulation: [F2](#)

Thermal Barrier: Rigid Foam Insulation: [F3](#)

Misc. Assemblies

1-hour Steel and Concrete Assembly: [USF-Detail](#)

20-Min Fire Rated Wood Door Assembly: [D1](#)

Recommended Uses

Fire Rated Assemblies		
Elevator Shafts / Control Rooms	Concealed Wood Blocking	Interior Walls and Hallways
1 and 2 Hour Wall / Ceiling assemblies	Engineered Wood I-joists	Interior Architectural Woodwork
Structural Steel 1 and 2 Hour Beams & Columns	Aluminum	Interior Carpentry or Finished Carpentry and Paneling
Non-Fire-Retardant Wood	OSB (Oriented Strand Board)	Structural Rough Carpentry
Finished Carpentry	Wood Joist Flooring & Ceiling	Gypsum Ceilings
Heavy Timbers and Log Home Care	Steel I Joist & Decking	1 Hour Gypsum Ceiling
Interior Architectural Woodwork or Millwork	Facade Refinishing	1 Hour Gypsum Wall Assemblies
Wherever a Class A fire resistance is encouraged or recommended	Interior Cabinetry	2 Hour Gypsum Wall Assemblies
Stage and Theatrical Props	Interior Rough Carpentry	Foam Board Insulation
1 hour 6" steel pipe	Interior Wood Paneling	PVC (Polyvinyl Chloride)
Decorative Materials	Reclaimed Wood	Roof Assemblies
Assemblies or Separations	Floor and Roof Truss Systems, including Plywood	And more
	Sheathing (OSB)	
	Glulams	

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Technical & Material Data Sheets

Technical Data Sheets (TDS) and Safety Data Sheets (SDS) for all FireGuard Products:

FireGuard E-84 for Steel [[TDS](#)] [[SDS](#)]
FireGuard E-84 for Gypsum/Wood [[TDS](#)] [[SDS](#)]
FireGuard E-84 for Masonry Concrete [[TDS](#)] [[SDS](#)]
FireGuard Z-1 Tie-Coat [[TDS](#)] [[SDS](#)]
FireGuard XL-95 [[TDS](#)] [[SDS](#)]
FireGuard for Fabrics [[TDS](#)] [[SDS](#)]

Where to Buy

Shield Industries' line of cleaning and protective products are available **online** or in these fine stores:

Home Depot
Joann's Fabrics
Menard's
Select Shaw Dealers
Sherwin Williams
Hancock Fabrics
Other Fine Retailers

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