



# Thermo-Lag<sup>®</sup> E100

## Epoxy Intumescent Fireproofing





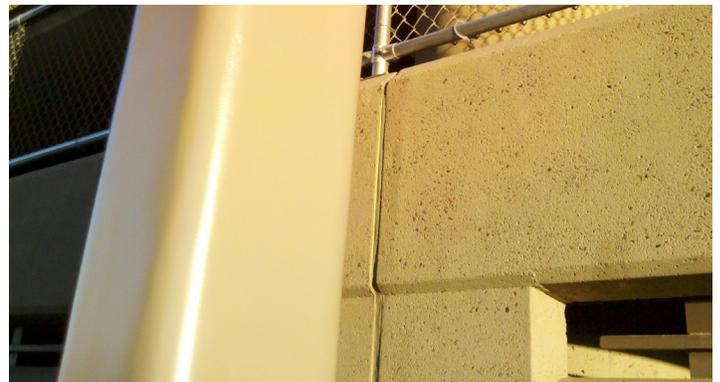
Thermo-Lag E100 is an epoxy intumescent fireproofing system with an advanced formulation eliminating the need for a mesh reinforcement layer. It was specifically designed to provide 1-3 hour cellulosic fire protection for commercial structural steel.

## Benefits of Thermo-Lag E100

- Certified to UL 263/ASTM E119/NFPA 251/ CAN/ULC S 101-07 up to 3 hrs
- Most efficient epoxy intumescent in the industry
- Self reinforced, no mesh needed
- Saves application time, high film build, fast cure
- Rated for exterior and interior use
- LEED compliant
- Easy to apply, 1:1 mix ratio
- Highest quality aesthetics

## Applications

- Commercial buildings
- Light industrial facilities
- Clean rooms
- Manufacturing plants
- Factories and warehouses
- Stadiums and convention centers
- Airport terminals
- Museums





Thermo-Lag E100 is a tough, durable material that can deliver lasting physical performance. It is the ideal solution for both onsite and offsite application, providing the ultimate in design flexibility and enhanced project scheduling.

## On-Site Time and Labor Savings

Day 1

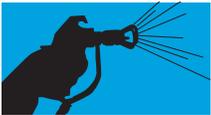
Day 2

Day 3

Day 4

Day 5

Day 6



**COMPLETE**

up to **60% faster application**

Thermo-Lag E100 can be applied up to 200 mils per day, most projects are complete in two days.



**COMPLETE**

Competitor water based intumescent can take up to six days to complete.

## Offsite Speed and Durability

- Fast application and shop throughput
- Hard, durable material resistant to damage
- High flexural strength
- High quality finish in less time
- Connections are easily fireproofed onsite

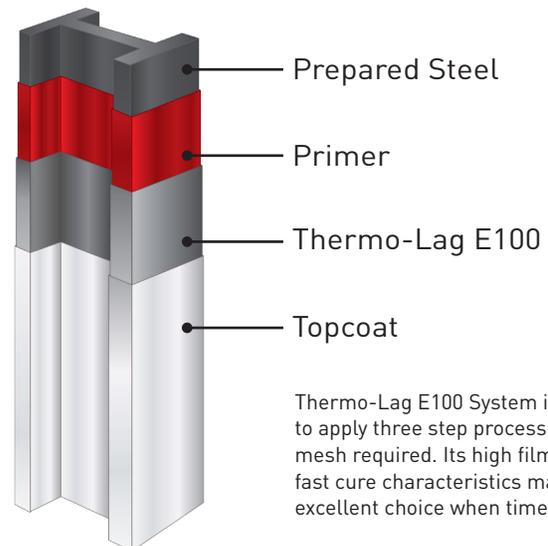




Thermo-Lag E100 saves lives and assets. When exposed to a fire it intumesces or swells, producing a heat blocking char which insulates the steel from exposure to high temperatures. This allows more time for people to exit and firefighters to respond.

## Application Properties

	THERMO-LAG E100	THERMO-LAG E100 S
CONSTRUCTION PHASE	OFFSITE	ONSITE OR OFFSITE
RECOAT TIME	30 MIN	4 HRS
VOLUME SOLIDS	100%	95%
FILM BUILD (PER COAT)	60-200 MILS (1.5-5MM)	60-120 MILS (1.5-3MM)
APPLICATION METHOD	PLURAL COMPONENT TROWEL	PLURAL COMPONENT SINGLE COMPONENT TROWEL



Thermo-Lag E100 System is an easy to apply three step process, with no mesh required. Its high film build and fast cure characteristics make it an excellent choice when time is critical.



## Certifications

Thermo-Lag E100 has undergone extensive third-party testing, and is certified in accordance to UL 263/ASTM E119/NFPA 251/CAN/ULC S 101-07.

It offers 1-3 hour cellulosic fire protection for:

- Restrained/unrestrained beams
- I-section columns
- Tubular columns
- Pipes



## UL Environmental Testing

Thermo-Lag E100 is in full compliance with the acceptance criteria for the UL Environmental Test Program and is rated by UL and Intertek for both exterior and interior use.

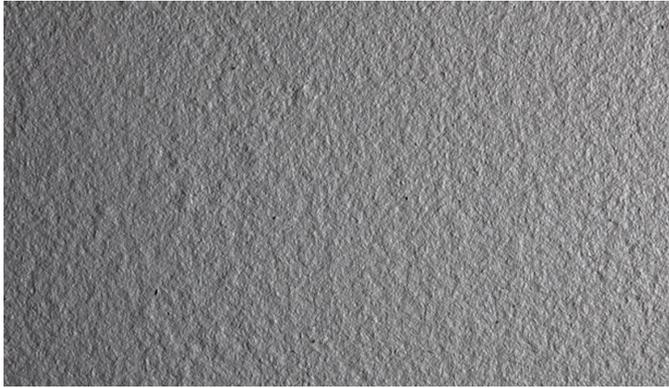
## Performance Data

HARDNESS (ASTM D2240)	>SHORE D 60
IMPACT RESISTANCE (ASTM D2794)	0.75 FT. LBS/IN
BOND STRENGTH (ASTM D4541)	>1,200 PSI (>8.2 MPA)
COMPRESSIVE STRENGTH (ASTM D695)	>2,330 PSI (>16 MPA)
FLEXURAL STRENGTH (ASTM D790)	>1,220 (>8.4 MPA)
SURFACE BURNING (ASTM E84)	CLASS A



# Thermo-Lag E100 Finish Levels

Thermo-Lag E100 is used on many projects where surface finish and aesthetics are important. A high quality surface finish is easy to obtain with Thermo-Lag E100. There are a range of finish levels that can be achieved depending on requirements and the aesthetics desired.



## Level 1 Finish

### Standard Finish

(Spray Applied and Minimal Back Rolling)

#### Definition

Standard sprayed finish applied to specified DFT requirements with surface irregularities. Surface has a textured appearance.

#### Procedures

Spray application with airless equipment. Surface is left as sprayed with hand tooling or back rolling on edges only.

#### Suggested Use

Areas where surface appearance is not of primary concern or not visible such as, mechanical rooms, parking garages, and light industrial applications.

## Level 2 Finish

### Commercial Finish

(Spray Applied and Back Rolled)

#### Definition

Sprayed and back rolled finish applied to specified DFT requirements with some surface irregularities. Uniform, light texture with minimal surface defects.

#### Procedures

Spray application with airless equipment. Surface is then back rolled to smooth high points and surface defects. Back rolling/hand tooling are required on flanges and angles. Material must be applied in a consistent manner with lighter coats. This will maintain the best possible finish prior to any secondary surface finishing.

#### Suggested Use

Visible areas where a uniform texture and an upgrade from a Level 1 Finish is desired.

# Choosing the Right Finish

This guide provides architects options to select and clearly define the needed aesthetic level for a project and describes the application techniques required. It is always good practice to produce a representative sample which should be used as the quality standard for the project.



## Level 3 Finish

### Architectural Finish

(Spray Applied, Back Rolled and Sanded)

#### Definition

Spray applied to specified DFT requirements, back rolled and sanded. Some slight texture visible. Uniform appearance with minimal surface defects.

#### Procedures

Spray application with airless equipment. Surface is then back rolled to smooth high points and surface defects. Back rolling and hand tooling are required. Surface is then sanded to minimize texture. Material must be applied in a consistent manner with lighter coats. This will maintain the best possible finish prior to any secondary surface finishing.

#### Suggested Use

Areas with high visibility where high quality finish is desired.

## Level 4 Finish

### High Quality Architectural Finish

(Spray Applied, Back Rolled and Sanded Smooth)

#### Definition

Spray applied to specified DFT requirements, back rolled and sanded. No texture visible. Uniform smooth appearance with no surface defects. Surface shall be smooth and free of tool marks and ridges.

#### Procedures

Spray application with airless equipment. Surface is then back rolled to smooth high points and surface defects. Back rolling and hand tooling are required. Surface is then sanded smooth to eliminate orange peel texture. Material must be applied in a consistent manner with lighter coats. This will maintain the best possible finish prior to any secondary surface finishing.

#### Suggested Use

Areas where highest quality finish is desired.

#### Application considerations:

It is important to understand that application time and labor required will increase with higher finishing levels. Carboline is not responsible for determining what finish is acceptable. The level of finish achieved will depend on: experience of the applicator, ambient conditions, application method and equipment, access to steel, size and configuration of steel structure.



## ***PROVEN PROTECTION UNDER FIRE®***

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