

The Promat logo consists of the word "Promat" in a white, bold, sans-serif font, centered within a solid blue rectangular background.

**Promat**

by etex

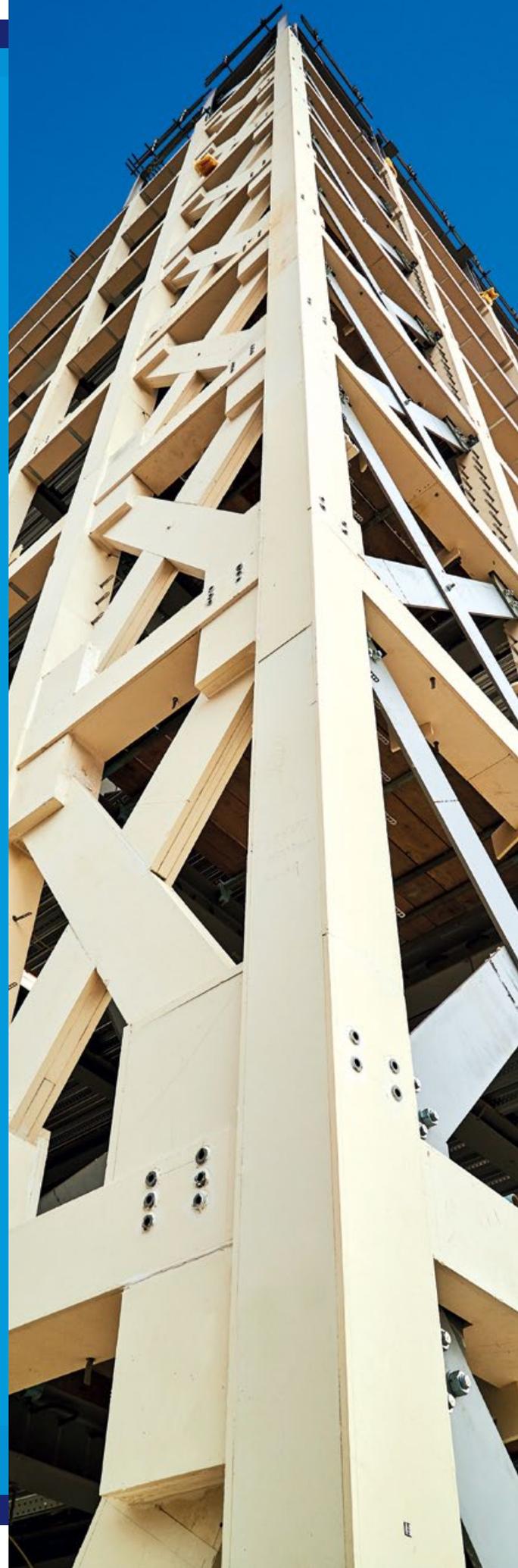
A low-angle photograph of a modern building's facade, featuring a complex, geometric pattern of light-colored structural steel beams. The sky is blue with some white clouds. A semi-transparent blue horizontal bar is overlaid on the right side of the image.

# ESSENTIAL FIRE PROTECTION FOR STRUCTURAL STEEL

# STEEL COLUMN PROTECTION

In the US, building codes have specific passive fire-protection requirements for structural steel columns in buildings. These requirements are in place to prevent heat from compromising the structural integrity of the steel column in the event of a fire - providing valuable time for building occupants to exit the building and fire fighters to control the blaze before the structure is compromised.

In most cases, the steel columns are insulated with either a non-combustible board insulation, like Promat's PROMATECT® calcium silicate boards, or covered in intumescent paints, like our PROMAPAINTE® 3. These two materials have been specifically designed to deliver robust, consistent passive fire protection for nearly every structural steel application.



# TYPES OF STEEL COLUMN PROTECTION

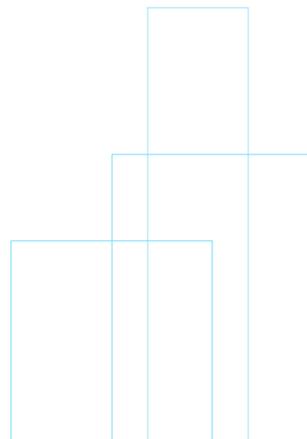
## CALCIUM SILICATE BOARD INSULATION

Calcium silicate board insulation is installed around the steel column, and it works by preventing heat transfer from the fire to the column.



## INTUMESCENT PAINTS

Intumescent paints are applied (via spray, brush, or roller) directly to the surface of the steel column. When exposed to high heat, these paints expand, forming a protective insulation barrier that limits heat transfer to the steel column.





# PROMATECT BOARD INSULATION

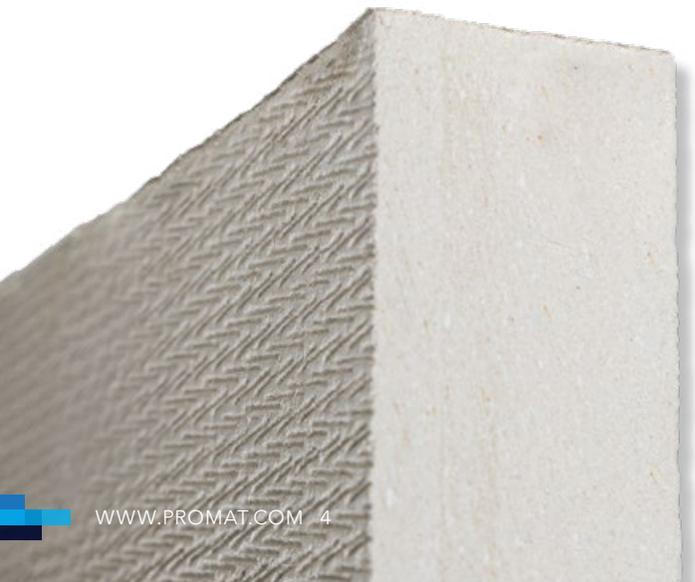
## PROMATECT®-H

PROMATECT-H is a non-combustible, cement-bonded, calcium silicate board reinforced with specialized fibers and fillers. These large boards provide 1-3 hours of fire protection for steel columns, depending on the configuration. Promatect-H is a high-density board, at 56 pcf, that comes in thicknesses ranging from 0.5" to 1.0".



## PROMATECT®-L

PROMATECT-L is a non-combustible, low-density calcium silicate board at 28 pcf. The large-sized board provides fire protection for up to 4 hours, depending on the configuration, and is offered in a range of thicknesses from 0.75" - 2.0".



# THE PROMATECT ADVANTAGE

- **Can be left semi-exposed for up to 6 months during the construction phase:** When the edges are sealed with fire-resistant silicone, PROMATECT can remain partially-exposed during construction, allowing flexibility in installation schedules. As long as temperatures stay above freezing and the material is protected from standing water and roof run-off, PROMATECT can tolerate partial weather exposure for up to 6 months.
- **Manufactured to factory-controlled thicknesses and tolerances:** This ensures a consistent insulation thickness throughout the system, eliminating the irregularities often caused by spray applications that could lead to a failed site inspection.
- **Self-supporting:** PROMATECT boards don't require a metal mesh for support. They can be screwed directly into the steel column or into other panels to be anchored in place.
- **No temperature limitations during installation:** PROMATECT boards do not need to be cured and can be installed in any temperature, unlike spray coatings that require specific environmental conditions for application and curing.
- **Gain in rentable space:** Unlike sprays that need to be covered with a gypsum board for a finished appearance, PROMATECT boards can be finished directly. This helps maintain a close profile to the steel columns, creating a notable gain in rentable space when compared to most other traditional spray and gypsum solutions.
- **PROMAT guarantee:** We guarantee the uniform quality for all our board products assured by the listing and follow-up service of major independent third-party agencies.



## CODE REQUIREMENTS

Promat's PROMATECT-H and PROMATECT-L boards meet all requirements for steel column passive fire protection in the US and Europe, including:

- **ASTM E-136:** Standard Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 1382°F/750°C
- **ASTM E-84:** Standard Test Method for Surface Burning Characteristics of Building Materials
- **ASTM E-119 / UL 263:** Standard Test Methods for Building Construction Materials

## PROMATECT FIRE RESISTANCE RATINGS

TEST METHODS	PROMATECT-H	PROMATECT-L
UL Design N. N306	1-3 hours	-
UL Design N. X309 & X310	1-3 hours	1-3 hours
UL Design N. X311	1-3 hours	1-3 hours
Norwegian Institute of Tech Test Report #250060	1-3 hours pr HIFT	-
Omega Point Design N. C 300	0.034 W/m K	4 hours

Use the **QR Code** below to access **PROMATECT-H** web page:



Use the **QR Code** below to access **PROMATECT-L** web page:



# INTUMESCENT PAINT

## PROMAPAIN<sup>®</sup> 3

PROMAPAIN<sup>®</sup> 3 is a water-based intumescent coating designed to protect structural steel columns. When exposed to fire, PROMAPAIN<sup>®</sup> 3 expands, forming a protective, insulating layer over the steel column, protecting the column for up to 3 hours. Additionally, it can be applied as the sole form of passive fire protection, or it can be used in conjunction with an insulation, like PROMATECT-H, to reach areas that are difficult or even impossible to insulate with a board – such as hollow sections or junctions with unique angles.

PROMAPAIN<sup>®</sup> 3 is made of polyvinyl acetate resins and fillers, and it is applied directly to the primed steel surface via spray, brush, or roller. PROMAPAIN<sup>®</sup> 3 can be left exposed or painted with a topcoat to match the surrounding steel or other structures.

## PROMAPAIN<sup>®</sup> 3 FIRE RESISTANCE RATINGS

TEST METHODS	PROMAPAIN <sup>®</sup> 3
ASTM E119	3 hours
UL 263	3 hours
NFPA 250	3 hours
BS 476	2 hours

# Promat

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## CONTACT OUR PROMAT SPECIALISTS TODAY

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