

# Thermo-Lag® 3000 Petrochemical



**A two component, petrochemical grade, epoxy based intumescent fireproofing coating which is spray applied directly to primed steel surfaces.**

**PRODUCT DETAILS** Thermo-Lag 3000 is used to provide 1-4 hour hydrocarbon fire ratings for structural steel, beams and columns, vessel skirts, bulkheads, underdecks, and electrical raceways. Thermo-Lag 3000 cures to a tough, durable, protective finish that withstands handling, transport and job site fabrication. Low coating thickness allows for aesthetically pleasing industrial finishes for exterior and interior applications. When exposed to fire, Thermo-Lag 3000 intumesces, forming an expanding, heat blocking char layer which protects structural steel beams, columns and vessel skirts from collapse for a specified amount of time. The fire rating provided by Thermo-Lag 3000 is determined by the applied thickness, steel shape and steel mass.

## APPLICATIONS

REFINERIES  
PETROCHEMICAL PLANTS  
GAS PLANTS  
LNG FACILITIES  
LIGHT INDUSTRIAL  
POWER PLANTS

## FEATURES

- › Listed by Underwriter's Laboratories for 1-4 hour ratings
- › Certified by Lloyd's Register of Shipping (LRS) and Det
- › Norske Veritas (DNV)
- › FM Global approved
- › Successfully passed the UL 1709 Environmental Test Program
- › Most efficient epoxy based intumescent coating in the industry
- › Lowest applied weight of any exterior rated epoxy intumescent coating
- › Resistant to torch / hose stream impingement per NFPA 58, Annex H
- › Explosion resistant
- › Available in 100% solids and 95% solids versions

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## Quality Product Backed by Quality Service

- › Carboline Company has been solving tough corrosion and fireproofing problems since 1947
- › Industrial service centers and sales offices located around the world
- › Over 20 worldwide manufacturing locations with a global network of sales and technical support
- › Industry leading field service and technical engineering support team
- › Certified to ISO 9001

### Reasons To Use Thermo-Lag 3000

PERFORMANCE FEATURE	ADVANTAGE	BENEFIT
Low thickness requirements	Industry leading hydrocarbon fire ratings	Less material required to achieve fire rating
1:1 mix ratio	Easy to maintain proper mix ratio, visual ratio check	Avoid off ratio application, time and labor savings
High durability and toughness	High impact resistance	Longer service life, damage resistant

### Physical Properties Thermo-Lag 3000

Spray Density <sup>1</sup>	81 pcf (1.29 g/cm <sup>3</sup> )
Weight Per Gallon	11 lbs (4.9 kg)
Solids by Volume	100% and 95% versions
VOC (EPA Method 24)	0.11 (13 g/l)
Compressive Strength (ASTM D695)	2,190 psi (15.1 MPa)
Tensile Strength (ASTM D638)	36,700 psi (253 MPa) (modulus)
Flexural Strength (ASTM D790)	2,253 psi (15.5 MPa)
Bond Strength (ASTM D4541)	300 psi (2.1 MPa) (minimum)

Hardness (ASTM D2240)	Shore D 50
Mix Ratio	1:1
Film Build	160-250 mils (4-6 mm) per coat
Application Method	100%: plural airless, trowel 95%: standard airless, trowel
Recoat Time / Topcoat Time	100%: 30 minutes / 10 hours 95%: 4 hours / 48 hours
UL 1709 Hydrocarbon Fire Ratings	1 hour: 120 mils (3.0 mm) 2 hour: 310 mils (7.9 mm) 3 hour: 500 mils (12.6 mm) 4 hour: 690 mils (17.5 mm)

\*All values derived under laboratory conditions



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