



## **CEASEFIRE™ for STRUCTURAL STEEL**

### ***FIRE RETARDANT COATING***

### **Technical Data Sheet**

#### **Patent Pending**

**CEASEFIRE™ for Structural Steel** is a unique two-component epoxy fire retardant – intumescent coating based on our proprietary non-halogenated phosphate technology. All of our phosphates are manufactured in house for our exclusive use.

When exposed to heat and/or fire, **CEASEFIRE™ for Structural Steel** forms a robust, dense char insulation layer that protects a variety of substrates from the effects of heat and flame. The active ingredients in CEASEFIRE™ products are not water-soluble and will not leach out over time.

**CEASEFIRE™ for Structural Steel** has the following characteristics:

Cross linking allows handling within four hours

- Highly Impact resistant
- Water and Chemical resistant
- Interior and Exterior Use
- Strong adhesion; pull values in excess of 2300 psi
- Ease of application; designed to be applied to vertical walls at a 1/2 in. on vertical surface with no sag or drip in single pass
- Can be applied with single stage pump
- Factory application
- Cost effective
- Castable
- Very low smoke
- Non Toxic per BSS7329 protocol

Post 9/11 evaluations of fireproofing materials lead to the conclusion that adhesion, weathering, impact resistance, in addition to installed cost and hourly ratings, are requirements that must be considered in selection of fireproofing materials.

Steel grade CEASEFIRE™ is the *most complete fire resistive material available today*. All tests have been run on 1/4 inch steel materials. The thicker the steel the thinner the coating since the test is for steel heat up and it takes more time to heat a larger steel mass.

The steel grade CEASEFIRE™ can be sprayed with a modified 28:1 president single leg paint sprayer. If 10% xylene added to mixed material, a 3/16 lamb skin roller can be use, trowel or brushes for application. Xylene is slow to evaporate and will slow the cure time. For clean up, MEK works well.



Specification	Value
% Solids	100%
Mix Ratio (A:B)	100:7
Viscosity Part A @ 25°C	Paste. Highly thixotropic
Viscosity Part B @ 25°C	140 cps
Mixed viscosity @ 25°C	88,000 cps
Working life @ 25°C (77°F)	2 hours
Tack free set time @ 25°C	4 hours
Full Cure @ 25°C	72 hours
VOCs	None

**Performance Data:**

Test	Result
<b>In-house lab test:</b>	
One coat, 3/8" thick on 1/4" steel	122 minutes
One coat, 1/16" thick on 1/4" steel	67 minutes
ASTM E119	90 minutes @ 3/8" thick, one coat, untreated steel 2 hours @ 1/2" thick, one coat, untreated steel
<b>ASTM E662</b>	
Ds @ 1.5 min, non-flaming	0.5
DS @ 1.5 min, flaming	1.7
DS @ 4.0 min, non-flaming	1.1
DS@ 4.0 min, flaming	51.7
BSS7239 (Toxic Gas) @ 72.2° F, 52% relative humidity, 30.07 in. mercury	Avg. PPM
CO	325.0
HCN	20.0
SO <sub>2</sub>	10.0
HCL	27.5
HF	0.0
NO	57.5
NO <sub>2</sub>	8.0
ASTM E162 (Flame Spread)	Class A
<b>ASTM D256 (Method A, Izod Impact Testing)</b>	
Energy Consumption (foot-pounds)	0.47
Impact Strength (foot-pounds-force per inch)	0.93
ASTM 2240 Shore D Hardness	70
ASTM G53 (1000 hr UV Exposure)	After 1000 hours, no visual cracking, melting, or spotting
ASTM B117 (720 hrs salt spray)	No loss of coating adhesion. No defects.



*Surface should be prepared in accordance with SSPC SP2 or SSPC SP3. Care should be taken to ensure the removal of any / all contaminates such as loose materials, scale, primers, coatings, solvents, oils and grease and any other contaminates that may interfere with the adhesion of CEASEFIRE™ for Structural Steel. However, CEASEFIRE™ for Structural Steel is extremely tolerant of compromised surfaces and will provide excellent protection over tight adhering rust or most existing coatings in sound condition.*

