



CEASEFIRE™ HIGH PERFORMANCE FIRE RETARDANT COATING Data Sheet

Patent Pending

CEASEFIRE™ High Performance white two part fire retardant epoxy is an 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™ High Performance** forms a continuous char foam that protects products from both heat and flame. The active ingredients in **CEASEFIRE™ High Performance** products are not water soluble and will not leach out over time. **CEASEFIRE™ High Performance** has DNV Type Approval for use as a coating on ships and mobile off shore units throughout all accommodations. (DNV Certificate No. F-16685.)

CEASEFIRE™ High Performance is recommended for use as a base resin for specialty coatings. The viscosity is easily reduced by the addition of xylene. Pigments, anti-settling agents and other flame retardants may also be incorporated. To attain a 80° sheen, **CEASEFIRE™ High Performance** needs to be applied at 5 to 10 wet mils in a dry (low humidity) 37.7°C (100°F) heated area to ensure a tack free finish.

Burning a surface with **CEASEFIRE™ High Performance** on it will produce a ¼" to 2" char foam depending on the thickness of the **CEASEFIRE™** material applied and the char will start rising in 10 - 40 seconds. Once this char layer forms, smoke generation is almost entirely eliminated, burning ceases, and coated surfaces are thermally insulated.

Our in House Lab tests were run on ¼" steel plates. Our test was done with 80 dry mils applied to the 1/4" steel plate and a 1500°F flame applied to ceasefire side. It took 58 minutes for the back side of the plate to reach 500°F. More time would be seen if this test is done on ½" or larger steel plate or if the thickness of the material is increased.

Due to the fluid nature of the **CEASEFIRE™ High Performance** white material, it is hard to apply a single coat thick than 15-20 wet mils.

MEK is a good clean up solvent. Do not use MEK or acetone for thinning this material.



Specification	Value
% Solids	100%
Mix Ratio (A:B)	100:32
Viscosity Part A @ 25°C	16,000 cps
Viscosity Part B @ 25°C	250 cps
Mixed viscosity @ 25°C	1200 cps
Mixed Viscosity + 10% xylene @ 25°C	850 cps
Working life @ 25°C (77°F)	5 hours
Working life @ 37.7°C (100°F)	1.5 hours
Tack free set time @ 25°C	12 hours
Tack free set time @ 37.7°C	4 hours
Full Cure @ 25°C	48 hours
VOCs	None

With a 5 dry mil coating on most substrates:

Property	Value
Flammability Rating (UL94)	V-0
Glass Transition Temp	80°C
Hardness Shore D	72
Peel Strength	6.5 lbs/inch
Elongation to break	12%
Char height	Over 1.0 inch
Char initiation temp	300°C
Thermal Conductivity of Char	$\leq 1 \times 10^{-4} \text{ cal}_{\text{sec}} \text{ cm}^2 \text{ } ^\circ\text{C}/\text{cm}$
Air convection through char	$\leq .001 \text{ cc } \Delta\text{P (mmHg)}_{\text{cm}^2 \text{ sec}}$
MSC.41(64)	Pass for marine coating

ASTM –E119:

52 min @ 35 dry mils

58 min @ 60 dry mils

Testing: If your application requires a specific flame spread or other fire retardant certificate other than what our in-house or lab tests show, our staff is available to assist and guide you in obtaining them.

