

TECHNICAL DATA & PRODUCT DESCRIPTION

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SECTION 1: PRODUCT NAME

FAIL SAFE ONE



SECTION 2: MANUFACTURED BY

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SECTION 3: PRODUCT DESCRIPTION

FAIL SAFE ONE is a cloudy white (dries clear) odorless, environmentally neutral, zero VOC / VOS penetrant in a colloidal liquid base.

SECTION 4: BASIC USE

When applied to already-set Portland cement concrete, **FAIL SAFE ONE** integrally seals, waterproofs, densifies, and preserves, attributes beneficial to concrete of any age, at any point during its useful lifespan. **FAIL SAFE ONE** provides concrete an effective chloride ion barrier preserving its imbedded steel while removing potential for hostile contaminant ingress and significantly reducing vapor transmission rate, effectively also preserving treated concrete's integrity. A **FAIL SAFE ONE** treatment further increases surface abrasion resistance, and surface acid / chemical damage resistance. As **FAIL SAFE ONE** penetrates extraordinarily deeply into concrete, it prolifically reacts with interior ingredients, ie, free alkali or unused calcium hydroxide residue, etc. These reactions prolifically convert **FAIL SAFE ONE's** unusually low solids colloidal liquid to a 100% solids especially-formulated very insoluble precipitate, instantly providing additional density by becoming an integral part of the concrete, occupying its accessible porosity and other tiny voids, forming a breathable barrier which begins in concrete's transitional porosity, located beneath its large surface porosity and its small microporosity, and deeper. The uniquely-induced barrier generates no heat during its liquid to solids conversion, nor expansion pressures at any time. The internally-generated pollutant barrier remains resilient and consists of pore sizes that are much smaller than concrete micropores, significantly diminishing void percentages thus permeability, allowing concrete to retain ability to breathe, expand, and contract as it needs to. The internal barriers, complete with its extremely small porosity, greatly reduce or eliminates the transmission of gases such as radon. **FAIL SAFE ONE** halts / greatly retards, internal existing corrosive activities, removing electrolyte availability, as it supplements, densifies, waterproofs, strengthens, and internally detoxifies concrete without deleterious effect to external appearance or physical characteristics. A **FAIL SAFE ONE** treatment will not impair concrete's surface traction quality and will further enhance its surface bonding ability. Areas that are to be treated need only be closed during treatment, and may be reopened immediately after treating. However, where a surface coating is planned, wait at least 8 hours following a **FAIL SAFE ONE** treatment (not necessary if surface was blasted), then flush with water, removing purged salts, particles, sediments, etc., if any. Surface may then be prepared to coating manufacturer specifications.

FAIL SAFE ONE is excellent as a primer application for surface treatments. **FAIL SAFE ONE** addresses reasons for potential early coating failures such as alkaline capillary moisture accumulation, saponification, laitance effect, etc. Since **FAIL SAFE ONE** is applied to old or new concrete without affecting surface quality, it may be used for the enhancement of all concrete installations, whether traffic bearing or not, such as auto traffic pavements, bridge decks, parking garage decks, airport pavements, hydro dams, pavers, sidewalks, driveways, parking lots, etc. **FAIL SAFE ONE** arrests leakage through concrete even while occurring. For example, water storage reservoirs, water treatment tanks, or below grade concrete, etc., with or without hydrostatic pressure. **FAIL SAFE ONE** will travel against water flow when applied to negative side, permanently arresting the flow of water.

AS A CURE METHOD: **FAIL SAFE ONE** is excellent as an alternative concrete curing method, providing a cure equal to, or better than, water curing. **FAIL SAFE ONE** as a cure method provides concrete the usual benefits of a curing agent, plus, **FAIL SAFE ONE** provides special ingredients to the yet-available capillary mix water, waiting to participate in hydration reaction rates and processes, in the plastic or semi-plastic mix, reciprocating acceleration of hydrations reaction rates and processes, in turn generating increased volumes of cement paste / hydration product, in a significantly shorter period of time, utilizing all of the remaining capillary water and leaving none to later evaporate and leave void spaces. As a result of utilizing all remaining capillary mix water, the concrete's capillary void spaces become more segmented and smaller than usual. **FAIL SAFE ONE** provides concrete a superior cure imparting extraordinary strength, surface hardness and impermeability, subsequently translating to greatly-improved durability. The **FAIL SAFE ONE** cure method provides concrete an especially formulated permanent subsurface precipitate barrier containing pore sizes smaller than concrete micropores, even further diminishing porosity / permeability, effectively forcing gases such as radon to seek other avenues of escape instead of passing through the concrete, where applicable. The **FAIL SAFE ONE** cure method leaves no surface residue to interfere with surface bonding quality, important where striping or applying a topical. Utilizing **FAIL SAFE ONE** as an alternative cure method produces concrete significantly more waterproof, abrasion resistant, freeze damage resistant, dust resistant, acid / chemical resistant, etc.

SECTION 5: INSTALLATION SUGGESTIONS

On Already-Set Concrete:

Note: In hot climates, mist-wet the surface with water and remove any puddles prior to application.

Apply **FAIL SAFE ONE** using a medium to high-pressure airless spray unit, complete with fan spray nozzle. Holding spray tip 6 inches from the surface, apply **FAIL SAFE ONE** at a minimum rate of 200 square feet per gallon with an overlapping spray pattern of 20-30%. Begin application at the lowest elevation. For example, walls and slopes should be applied side to side, from the bottom up.

As An Alternative Cure Method:

Apply with a low-pressure non-atomizing, spray apparatus such as a pump-tank sprayer or mechanical cure slurry pump, or alternatively by flooding-on. **FAIL SAFE ONE** is ideally applied to the newly-poured concrete surface as soon as is practical. Should conditions require the surface to be walked on, for application, concrete should be allowed the time to adequately harden, so as not to imprint or mar its surface during application. Recommended minimum coverage rate as a cure method is 150 square feet per gallon.