



VCI-FE LAY UP POWDER

Product Description:

VCI-FE Lay Up Powder is a silica-free and water soluble, volatile corrosion inhibitor for Iron and Aluminum (VCI-FE), designed to protect vessels such as boilers, feed water tanks, turbines, heat exchangers and steam or condensate lines during lay up periods. It can also be used as treatment product during and after boiler hydrostatic testing. The VCI-FE Lay Up Powder provides continuous short term and long term corrosion protection for ferrous metals as well as aluminum. This specially designed VCI-FE product prevents corrosion on metal surfaces in both vapor and contact phases. The volatile component is attracted to the metal surface above the water line and forms a molecular barrier against oxidation, so even the most difficult to reach areas are protected. VCI-FE Lay Up Powder can be applied wet or dry using a variety of easy-to-use application methods. Prescribed doses can be introduced into the system in powder form by dusting manually, fogging it into enclosed spaces using a low-pressure air hose, or simply dissolving it into water. The powder is safe and environmentally friendly. It does not contain phosphates, heavy metals, or nitrites. It replaces hydrocarbon and solvent-based liquids, nitrogen blankets, desiccants and other less dependable or costly preservation alternatives. VCI-FE Lay Up Powder requires no special surface preparation prior to routine shut-down, and it does not need to be removed prior to start-up. The boiler should be cooled and drained before charging. Refer to our procedure on: [Removing Boilers From Service](#). The system does not need to be re-charged or actively maintained during the lay-up period. If the VCI-FE layer on the metal surface is disturbed for any reason it reapplies instantaneously before corrosion can begin.

VCI-FE Lay Up Powder is not suitable for applications with copper and brass. Use our VCI-CU Lay Up Powder in such applications.

Typical Properties:

Appearance: Free-flowing white powder.
Solubility: Soluble in water 19.6g/100 ml at 15°C.
pH: 6-7 (@1% aqueous solution)
Specific gravity: 1.26 at 25°C
Melting point: Not applicable
Flash point: None
Odor: None to very slight

Typical Dosage:

For Dry Application (such as Lay Up):
Use 3.15 lbs (1.4 Kg) per 1000 gallons of system Capacity.
For Wet Application (such as Hydrostatic Testing):
Use 167 lbs (76 Kg) per 1000 gallons of system Capacity. Drain and seal when done for 6 month protection. Use 417 lbs (189 Kg) for longer protection.

Packaging and Storage:

VCI-FE Lay Up Powder is available in 5 lb (2.3 Kg). Store sealed, in a dry location, out of direct sunlight in temperatures not to exceed 65 °C.

Applications:

VCI-FE Lay Up Powder can be used to:

- Preserve or lay-up boilers, either wet or dry.
- Protect internal surfaces of compressors, turbines, engines, tanks, heat exchangers, pipe systems.
- Protect steam lines, condensate returns, heating and cooling systems.
- Preserve tubes, pipes and vessels.
- Preserve equipment that needs to undergo hydrostatic testing prior to shipping and or storage.

Consult with your Richard Hourigan, Inc., representative regarding any other specific applications. Visit: <http://www.RichardHouriganInc.com> for more information.