

Steamate* HRSG10

FACT SHEET

Total boiler and steam system corrosion inhibitor

- Unique blend of Polyamine and neutralizing amine corrosion inhibitors with specifically designed volatility, basicity and surface absorption properties for maximum power plant protection
- Protects feedwater, boiler and steam condensate system surfaces against multiple corrosion mechanisms including single and two-phase FAC
- Provides effective coverage of the entire steam boiler system from a single feedwater or condensate injection point
- Optimized for protection of all steam and water circuits in multiple drum heat recovery steam generators (HRSGs) in combined cycle power plants
- Polyamine adsorption inhibitor can provide protection to steam and water-touched surfaces during short and long-term outages

The product also contains a blend of neutralizing amines, which can neutralize acidic contaminants and elevate the pH of the condensate into the target alkaline range, where the protective metal oxides are most stable and adherent.

Proper feedwater corrosion control reduces the potential for boiler tube failures by reducing the level of corrosion product transported from the steam condensate and feedwater circuits, and the resulting metal oxide deposition on internal boiler heat transfer surfaces. Improved corrosion control also maintains optimum fuel-to-steam efficiency by maintaining clean heat transfer surfaces, and minimizes disruptive outages and maintenance costs associated with corrosion-related failures of steam condensate and feedwater piping, economizers, condensers and other associated equipment.

Description and Use

Steamate HRSG10 is a blend of a multifunctional, volatile, amine corrosion inhibitor (the “Polyamine” component), and a specific blend of neutralizing amines selected for optimum coverage of power plant systems.

Steamate HRSG10 protects metal surfaces from corrosion via multiple mechanisms. The volatile Polyamine corrosion inhibitor forms a barrier film on all metal and oxide surfaces. Thus, the deaerator, feedwater piping, steam generators, steam and condensate return piping are all better protected from dissolved oxygen, acidic and out-of-service corrosion.



Figure 1: Water beading on LCS coupons following Polyamine treatment

Typical Applications

Steamate HRSG10 is designed for application to high-pressure steam boilers and is particularly effective in protecting the complex steam water circuits in multiple drum heat recovery steam generators (HRSGs). The product is used in continuous application and also for increased downtime protection.

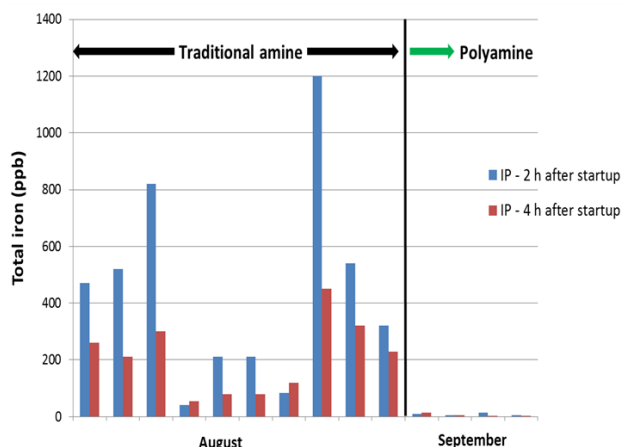


Figure 2: Comparison iron levels on HRSG start-up: traditional amine versus Steamate HRSG product with Polyamine

This technology is not approved for use where the steam contacts food products or is used for direct humidification of indoor air.

Treatment and Feeding Requirements

Feed Point – Steamate HRSG10 is designed to be fed neat (undiluted) into the feedwater or condensate.

Feedrate – Use in accordance with control procedures Veolia establishes for a specific system.

Dilution – Steamate HRSG10 must be fed neat. It is not designed for dilution with water, or blending with other boiler treatment products as dilution will cause destabilization and separation of this liquid blend.

Physical and Chemical Properties

Physical and chemical properties are shown on the Safety Data Sheet, a copy of which is available on request.

In some cases, a thin waxy layer may appear on top of the product or the product may look hazy. The thin layer is easily dispersed via mixing and the product becomes clear when heated to 41°C (Do not heat above 50°C). The presence of the thin layer or the haziness will not adversely affect the product's performance.

Packaging Information

Steamate HRSG10 is a liquid blend supplied in a variety of consumer packages.

Storage

Store Steamate HRSG10 at moderate temperatures in a ventilated location and protect from freezing.

Safety Precautions

A Safety Data Sheet containing detailed information about this product is available on request.