

PRODUCT DATA



TanninTech®-100 Green Boiler Water Treatment Program

PRODUCT APPLICATION:

TanninTech-100 is a multi-functional product specifically formulated to provide comprehensive corrosion and deposit control in steam boilers and steam and condensate return lines. By incorporating the innovative and renewable “Purified Tannin” technology, TanninTech-100 enables fire and water tube steam boilers to operate with much higher levels of dissolved solids than traditional programs, without developing calcium hardness or metal oxide deposit problems. By allowing boilers to operate at significantly higher cycles of concentration, TanninTech-100 allows customers to significantly reduce boiler blowdown and makeup water rates, lower greenhouse gas emissions, improve thermal productivity, and dramatically improve fuel consumption within their systems. In many operations, facilities report a 1–5% decrease in their boiler fuel cost after only a few months of operation on the program.

TanninTech-100 also provides boiler water systems with many other unique features and benefits. First, the “Purified Tannins” used in the product also act as oxygen scavengers, so additional products such as sulfite are not needed as part of the program. In addition, once introduced to the system the tannins quickly establish a protective “dynamic” barrier film on the metal surfaces, thereby reducing oxygen-related corrosion rates for mild steel, copper and even aluminum in the treated equipment. When used at elevated concentrations, TanninTech-100 can also be used to remove existing hardness and metal oxide deposits from boiler surfaces. The product can also be used to wet lay-up boilers for storage or intermittent operations. To see how TanninTech-100 can improve your overall performance and energy costs of your boiler water system, contact your Jamestown Representative to complete and review a site-specific computerized analysis of your facility.

As a natural product that incorporates only thermally and hydrolytically-stable components, TanninTech-100 is ideally suited for use in systems where either high surface temperatures or low makeup rates have previously caused scaling or sludging problems. As all of the ingredients in TanninTech-100 are FDA-Approved under CFR#21, Section 173.310, the product can be used to treat boilers where the steam comes in direct contact with food products. TanninTech-100 can be used in boilers operating up to 1,000 psig. As a natural product that is biodegradable and non-toxic, TanninTech-100 is an environmentally-friendly alternative to traditional programs, and can provide numerous LEEDS credits to facility operators. Talk to your representative for a list of these potential credits. Although often used as a one-drum treatment program, depending upon site-specific water and operating conditions, TanninTech-100 may need to be supplemented with an antifoam, steamline treatment or alkalinity builder.

PRODUCT DESCRIPTION:

Appearance:	Dark, viscous liquid with sweet odor
Specific Gravity:	1.15 - 1.19 @ 25 degrees C
pH (undiluted):	Approximately 10.5
Density:	Approximately 9.7 pounds per gallon
Freeze Point:	Less than 32 degrees F

PRODUCT DOSAGE:

As product feed rates are highly dependent upon makeup water characteristics and system operating conditions, your representative should be consulted for specific dosage recommendations. Using a water meter and a chemical metering pump, TanninTech-100 is typically fed to the system on a continuous basis proportional to boiler makeup or feed water rates. The product is best applied to the boiler feed water tank using an injection quill located below the waterline. TanninTech-100 is fed to the system at a rate sufficient to maintain a product concentration of 1,000 ppm, and an active colorimetric tannin residual of 150 ppm, within the boiler water. During the first 4-6 weeks of operation, the dosage requirement may be slightly higher due to the formation of the tannin protective layer and/or the dissolution of former deposits. The product may be fed neat from the shipping container, or pre-diluted with softened water from a mix tank. Materials of construction for the feed system include stainless steels and plastics. Do not use aluminum, copper or brass. TanninTech-100 residual levels can be easily measured using a Hach DR-890, DR900 or Pocket Colorimeter II with 420 nm wavelengths.

PRODUCT SAFETY:

As with any industrial chemical, TanninTech-100 should be handled with appropriate care. Therefore, please have all supervisory personnel and operating employees review the Safety Data Sheet (SDS) to obtain recommended application, storage and disposal procedures before using the product in your facility.

PRODUCT PACKAGING:

TanninTech-100 is available in 275 gallon totes, 55 and 30 gallon drums, 15 gallon containers, 5 gallon pails and bulk.

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TanninTech is a registered trademark of Azure Water Services, LLC

“Purified Tannins” provided by The Tannin Guys®