

HI3827

Boiler & Feedwater Test Kit

The HI3827 is a chemical test kit that determines that uses titration, colorimetry, and direct measurement to measure six parameters common to boilers and feedwater testing: alkalinity, chloride, hardness, phosphate, pH, and sulfite. The HI3827 is supplied with all of the necessary reagents and equipment to perform each analysis, and all reagents are individually available as they run out.

- **Complete setup**
 - All required materials are included with the test kit, such as the pH tester, sample beaker, indicator and reagent bottles and packets, and color comparison cube.
- **High resolution**
 - All tests provide a high resolution based on the expected range of measurement.
- **Replacement reagents available**
 - There is no need to buy a new kit when reagents are exhausted. The reagents for each parameter can be ordered individually.



Significance of Use

Monitoring the alkalinity, chloride, hardness, phosphate, pH, and sulfite concentrations in boiler and feedwater is essential in preventing hazardous or costly situations. These parameters are important in determining the corrosive characteristics of water due to carbonates and chloride. Sulfite is also critical to prevent pitting and oxidation of metal components. A high level of sulfite results in a lowered pH, which can also promote corrosion.

Specifications	HI3827 Test Kit for Boilers				
Test	Type	Range	Smallest Increment	Method	Number of Tests
Alkalinity (as CaCO ₃)	titration	0-100 mg/L (ppm) 0-300 mg/L (ppm)	1 mg/L (ppm) 3 mg/L (ppm)	phenolphthalein/ bromphenol blue	110 avg.
Chloride (as Cl ⁻)	titration	0-100 mg/L (ppm) 0-1000 mg/L (ppm)	1 mg/L (ppm) 10 mg/L (ppm)	mercuric nitrate	110 avg.
Hardness (as CaCO ₃)	titration	0.0-30.0 mg/L (ppm) 0-300 mg/L (ppm)	0.3 mg/L (ppm) 3 mg/L (ppm)	EDTA	100 avg.
Phosphate (as PO ₄ ³⁻)	colorimetric	0-5 mg/L (ppm)	1 mg/L (ppm)	ascorbic acid	50 avg
pH	electronic pH tester	0.0-14.0 pH	0.1 pH	-	life of the meter
Sulfite (as Na ₂ SO ₃)	titration	0.0-20.0 mg/L (ppm) 0-200 mg/L (ppm)	0.2 mg/L (ppm) 2 mg/L (ppm)	iodometric	110 avg.
Dimensions	440 x 330 x 100 mm (17.3 x 13.0 x 3.9")				
Ordering Information	HI3827 test kit includes all of the necessary reagents and accessories to perform over 100 tests for every parameter, with the exception of phosphate, which includes reagents for 50 tests, hard carrying cases and instructions.				
Reagents	HI3811-100 Alkalinity (as CaCO ₃), 110 tests avg.		HI70004P pH 4.01 buffer solution, 20 mL sachets (25)		
	HI3815-100 Chloride, 110 tests avg.		HI70007P pH 7.01 buffer solution, 20 mL sachets (25)		
	HI3812-100 Hardness, total (as CaCO ₃), 100 tests avg.		HI70010P pH 10.01 buffer solution, 20 mL sachets (25)		
	HI3833-050 Phosphate, 50 tests avg.		HI3822-100 Sulfite (as Na ₂ SO ₃), 110 tests avg.		