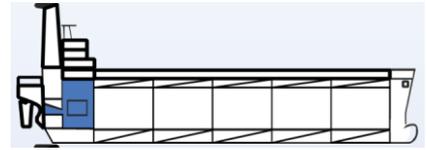


## ALPHAPAK 3 TEST KIT

MEDIUM AND HIGH-PRESSURE BOILER WATER TEST KIT  
(Phosphate, P-Alkalinity, M-Alkalinity, Chloride, pH)



### DESCRIPTION

**ALPHAPAK 3 TEST KIT** is used for measuring the chemical quality of medium and high pressure boilers water and keep it within the recommended limits. It is a compact test kit package for ensuring the optimum protection against corrosion and scale formation. Daily testing is recommended to maintain the boiler water properties within the desired level of quality.

### APPLICATION

Corrosion protection and scale formation inhibition of the medium and high pressure boilers, via measuring the water chemical parameters.

### USE

#### P. Alkalinity Test (ppm CaCO<sub>3</sub>)

1. Take a 200ml water sample in the container provided.
2. Add one P. Alkalinity tablet and shake to disintegrate. If P. Alkalinity is present the sample will turn blue.
3. Repeat tablet addition until the blue colour changes to permanent yellow.
4. Retain the sample for the M. Alkalinity test.

Calculation: P. Alkalinity as CaCO<sub>3</sub> (ppm) = (Number of tablets used x 20) – 10

#### M. Alkalinity Test (ppm CaCO<sub>3</sub>)

1. Add one M. Alkalinity tablet into the P. Alkalinity sample and shake or crush to disintegrate.
2. Repeat tablet addition, one at a time (giving time for the tablet to dissolve), until the sample turns red/pink permanently.
3. Count the number of tablets used and carry out the following calculation:

M. Alkalinity as CaCO<sub>3</sub> (ppm) = (Number of P & M tablets used x 20) – 10

Example: If 12 P and 5 M tablets are used, M. Alkalinity = [(12+5)x20]-10 = 330 ppm

#### PHOSPHATE TEST (ppm PO<sub>4</sub>)

1. Filter the water sample into the left-hand side and centre compartments of the phosphate block up to the 10ml mark.
2. Add one phosphate HR tablet to the left-hand side compartment of the block, crush and mix until completely dissolved. Replace the lid.
3. After ten minutes hold the comparator block towards a light and match the colour produced to one of the colour standards on the block.
4. Read off the phosphate concentration from the block.

- ✓ Helps with maintaining optimum corrosion protection
- ✓ Helps with preventing scale formation
- ✓ Protects valuable equipment assets
- ✓ Simple to use
- ✓ Sturdy plastic case
- ✓ Test methods included

### PROBLEMS SOLVED

- ✓ Corrosion and scale formation on low-pressure boilers
- ✓ Chemical properties of low-pressure boilers water

### APPLICATION AREAS

- ✓ Low-pressure boilers water

PRODUCT CODE: WT 347

**Chloride Test (ppm Cl)**

The range of chloride to be tested determines the size of water sample used. The higher the chloride level, the smaller the size of water sample used – this saves tablets. For example, for low chloride levels use 100ml of water sample. For higher chloride levels use 50ml water sample.

1. Take the water sample in the container provided.
2. Add one chloride tablet and shake to disintegrate. Sample should turn yellow if chlorides are present.
3. Repeat tablet addition (giving time for the tablet to dissolve), one at a time until the yellow colour changes to permanent orange/brown.
4. Count the number of tablets used and perform the following calculation.

Calculation for 100ml water sample: Chloride as Cl<sup>-</sup> (ppm) = (Number of tablets used x 10) - 10

Calculation for 50ml water sample: Chloride as Cl<sup>-</sup> (ppm) = (Number of tablets used x 20) - 20

**pH (pH 7-14 for boiler water & pH 4.5-10 for condensate water)**

1. Take a 50ml sample of the water to be tested in the plastic container provided.
2. Using the blue spoon provided, add one measure of pH Reagent to the water sample, allow to dissolve – stir if necessary.
3. Select the correct range of pH strip and dip into the water sample for approximately 15 seconds. Withdraw the strip and compare the colour produced with the colour chart on the pH strip container.

**CONTENTS**

- Instructions
- Phosphate Test Tablets (bottle of 100 tablets)
- P. Alkalinity Test Tablets (2 bottles bottle of 250 tablets each)
- Chloride Test Tablets (bottle of 250 tablets)
- M. Alkalinity Test Tablets (bottle of 250 tablets)
- pH Test Papers 7.5-14.0 (packet of 100 pieces) & Test Papers 4.5-10.0 (packet of 100 pieces) or alternatively they can be substituted with pH Test Papers 0-14.0 pH
- pH Reagent 80g
- Box with Filter Papers 9cm
- 10ml Moulded Cells (2 pieces)
- 50ml Beaker
- 250ml Glass Bottle
- Plastic Funnel
- Stirring Rod
- Measuring Scoop
- All above reagents and items can be separately ordered as spares.