

PHOSPHATE METHOD 8

INTRODUCTION

The vanadomolybdate method for Phosphate in Boiler water has been simplified by the use of the reagent in tablet form.

PRINCIPLE OF THE METHOD

In the presence of vanadates, phosphates react with molybdates to form yellow phospho-vanadomolybdate. The intensity of the yellow colour, which is proportional to the amount of phosphate present, is determined by comparison with a series of Lovibond permanent colour glass standards.

REAGENT REQUIRED

Lovibond Phosphate HR Tablets

THE STANDARD LOVIBOND COMPARATOR DISCS 3/70 AND 3/136

Disc 3/70 covers the range 0 to 100mg./l. of phosphate, calculated as PO₄, in 9 steps of 10mg./l. omitting 70 and 90.

Disc 3/136 covers the range 0 to 40mg./l. of Phosphate, in steps of 5mg/l.

Both discs are used with 13.5mm./10ml. moulded cells.

METHOD

Comparator discs 3/70 and 3/136

1. Filter a sample of cold boiler water through a Whatman No. 540 filter paper. Fill two 13.5mm. /10ml. moulded cells to the 10ml. mark with the filtered sample. Place one of these in the left hand compartment of the Comparator.
2. To the other cell add one Phosphate HR tablet, crush and mix to dissolve. Leave to stand for 10 minutes then place in the right hand compartment of the Comparator.
3. Hold the Comparator against a standard light source such as the Lovibond Daylight 2000 Unit or North Daylight (not fluorescent) and match the colour produced against the disc, rotating the disc until a colour match is obtained.
4. The reading displayed in the bottom right hand aperture is the Phosphate concentration as PO₄ in mg./l.

REVISION HISTORY

Date	Change Note	Issue
18/06/02	36/460	2
07/04/05	CA243	3
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