

Total Hardness -

Low Range (Y/N) Method

(1-100ppm as CaCO₃)

Reagents and Equipment

YES/NO Hardness Tablets – **AT004**

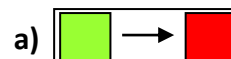
100 / 200ml flask / beaker



Method

1. Initially take 20ml of sample.
2. Add 1 Yes/No Hardness Tablet, crush and swirl to dissolve.
 - a. If a green colour develops the total hardness is less than 10ppm, continue to add more sample until the green colour changes to red. Note the total sample volume required:

<u>Sample volume</u>	<u>Total Hardness</u>
10ml	20ppm
20ml	10ppm
40ml	5ppm
100ml	2ppm
200ml	1ppm



- b. If, however, a red colour develops when the tablet is added to 20ml then the total hardness is greater than 10ppm. Add a second Yes/No Hardness tablet. If the red colour persists then the total hardness is greater than 20ppm.



Add further tablets to this 20ml sample until a green colour is given - each tablet added corresponds to 10ppm of hardness.

Example

- (a): =red between 40ml & 100ml
= greater than 2ppm, less than 5ppm
- (b): =green after 5 tablets (20ml) = 5 x10ppm
= approx. 50ppm