

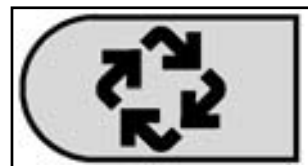
Meet iedere week de hardheid van het onthardwater, met behulp van de bijgeleverde testkit. Controleer alle aansluitingen visueel op eventuele lekkages.

- 1) Maatkolf 100 ml
- 2) Reagens 1 bufferoplossing (HARDNESS 1)
- 3) Reagens 2 indicator (HARDNESS 2)
- 4) Reagens 3 titratie vloeistof (HARDNESS 3)



Werkwijze:

1. Vul de maatkolf tot de 100 ml merkstreep met een watermonster.
2. Voeg 2 volle pipetspuitjes HARDNESS 1 toe. Zwenk de kolf om te mengen.
3. Voeg 4 druppels HARDNESS 2 toe. Zwenk de kolf om te mengen. Indien de vloeistof blauw kleurt is de waterhardheid in orde. Indien er een rode kleur optreedt, doorgaan met stap 4.
4. Voeg 1 druppel HARDNESS 3 toe. Zwenk de kolf om te mengen. Indien de vloeistof blauw kleurt is de waterhardheid in orde. Indien de vloeistof rood blijft, doorgaan met stap 5.
5. Regenereer de ontharder door op de regeneratieknop te drukken. Tijdens en tot een uur na regeneratie kan de hardheid niet gemeten worden. Herhaal de testprocedure na het verstrijken van deze tijd.





Total Hardness Test Kit

1 to 20 mg/L and 1 to 20 gpg (17 to 342 mg/L) as CaCO_3

For test kit 145201 (HA-71A)

DOC326.98.00002

Additional copies available on www.hach.com

Test preparation

- Rinse labware with deionized water between tests.
- When titrating, count each drop of titrant. Hold the dropper vertically. Swirl after each drop is added.

CAUTION: Handle chemical standards and reagents carefully. Review Material Safety Data Sheets for safe handling, storage and disposal information.

Required items

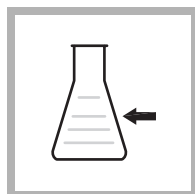
Description	Unit	Catalog no.
Bottle, square mixing	6/pkg	43906
Flask, Erlenmeyer, 125-mL	each	50543
Hardness 1 Buffer Solution	100 mL MDB ¹	42432
Hardness 2, ManVer [®] 2 hardness indicator	100 mL MDB ¹	42532
Hardness 3 Titrant Reagent	100 mL MDB ¹	42632
Measuring Tube, plastic, 5.83 mL	each	43800

¹Marked dropping bottle

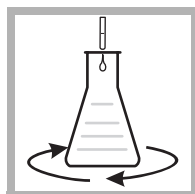
Optional items

Description	Unit	Catalog no.
Deionized Water	500 mL	27249
Hardness Standard Solution, 20 gpg as CaCO_3	500 mL	47949

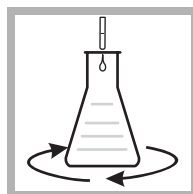
Low range (1 to 20 mg/L) test procedure



1. Fill the flask to the 100-mL mark with sample.

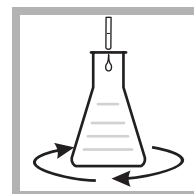


2. Add 2 mL of Buffer Solution, Hardness 1 to the flask. Swirl to mix.



3. Add four drops of Hardness 2 Indicator. Swirl to mix.

A blue color indicates soft water. If a red color develops, proceed to step 4.



4. Add Hardness 3 Titrant Reagent by drops. Count the drops until the color changes from red to blue. Swirl to mix after each drop.



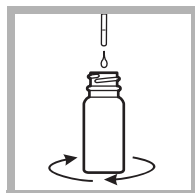
5. Calculate the results. Each drop of Hardness 3 Titrant Reagent equals 1 mg/L as calcium carbonate (CaCO_3).

High range (1 to 20 gpg (17 to 342 mg/L)) test procedure

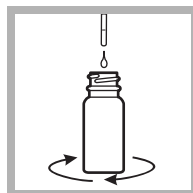


1. Fill the plastic measuring tube to the top with sample.

Pour the sample into the bottle.

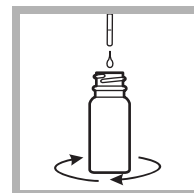


2. Add three drops of Buffer Solution, Hardness 1 to the mixing bottle. Swirl to mix.

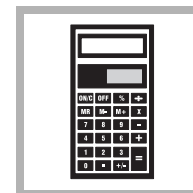


3. Add one drop of Hardness 2 Indicator to the mixing bottle. Swirl to mix.

A blue color indicates soft water. If a red color develops, proceed to step 4.



4. Add Hardness 3 Titrant Reagent by drops. Count the drops until the color changes from red to blue. Swirl to mix after each drop.



5. Calculate the results. Each drop of Hardness 3 Titrant Reagent equals 1 grain per gallon hardness as calcium carbonate (CaCO_3). One grain per gallon (gpg) equals 17.1 mg/L.