

Spectrophotometers for Water Quality Analysis



Covering the parameters required by regulation for both drinking water and industrial wastewater discharge, with the DR900 / DR4900 / DR6000 lineup

Choose the Right Model for Your Application

Hach Colorimeter / Spectrophotometer models share the same analytical methods and reagent/barcode sets, so results are cross-comparable between instruments. Each comes preloaded with 250+ Stored Programs to match your specific application.



DR900

Portable

- Ideal for fieldwork / outside the lab
- Waterproof, rugged, built-in battery
- Supports 90+ core parameters
- Great for spot checks & routine monitoring



DR4900

Benchtop · Latest Generation

- Large 10" touchscreen, easier than ever to operate
- VIS wavelength range: 320–1100 nm
- Built-in temperature & turbidity diagnostics catch errors before measurement
- Built-in GLP logging, supports 240+ parameters



DR6000

Benchtop · Full UV-Vis Range

- Deuterium + Tungsten lamps cover the UV range
- Highest accuracy in the DR Series
- Supports Wavelength Scan / Multi-wavelength
- Ideal for central labs & R&D applications

All three models read results in Abs, %T, and mg/L, and support both the ADMI (EPA 110.1) and Pt-Co color standards — choose the analysis method that matches your regulatory requirement, all within one instrument.

Parameters Under Thailand's "Drinking Water" Standard

DRINKING WATER

Based on the Provincial Waterworks Authority (PWA) drinking water quality notification — physical and chemical characteristics

Parameter	Standard	Hach Method	Reagent / Test Kit
Color, Apparent	≤ 15 Pt-Co	Platinum-Cobalt, Method 8025	—
Turbidity	≤ 4 NTU	Nephelometric — measured with a Turbidity Meter (TL2300/2100Q/TU5200)	—
Iron	≤ 0.3 mg/L	FerroVer, Method 8008	2105769 / AccuVac 2507025
Manganese**	≤ 0.3 mg/L	Periodate Oxidation, Method 8034	2430000
Copper	≤ 2.0 mg/L	Bicinchoninate, Method 8506	2105869 / AccuVac 2504025
Zinc	≤ 3.0 mg/L	Zincon, Method 8009	2429300
Sulfate	≤ 250 mg/L	SulfaVer 4, Method 8051	2106769
Chloride	≤ 250 mg/L	Mercuric Thiocyanate, Method 8113	2319800
Fluoride	≤ 0.7 mg/L	SPADNS, Method 8029	AccuVac 2506025
Nitrate (as NO ₃)	≤ 50 mg/L	Cadmium Reduction, Method 8039/8171	2106169 / AccuVac 2511025
Nitrite (as NO ₂)	≤ 3 mg/L	Diazotization, Method 8507	2107169
Free Chlorine Residual	≥ 0.2 mg/L	DPD, Method 8021	2105569 / AccuVac 2502025

*pH (6.5–8.5) and Total Dissolved Solids (TDS ≤600 mg/L) are measured separately using a pH/Conductivity Meter (electrochemistry).**Check import permit requirements (reagents/standards for this parameter may be subject to import controls — please verify before ordering).





Parameters Under Thailand's "WasteWater" Standard

WASTEWATER

Based on the Ministry of Industry Notification on Effluent Standards for Factories, B.E. 2560 (2017)

Parameter	Standard	Hach Method	Reagent / Test Kit
Color	≤ 300 ADMI	ADMI Weighted-Ordinate, Method 10048	DR6000/DR4900
COD	≤ 120 mg/L	Dichromate, Method 8000 (LR/HR)	2125825 / 2125925
Total Kjeldahl Nitrogen (TKN)	≤ 100 mg/L	Nessler, Method 8075	2495300
Sulfide	≤ 1 mg/L	Methylene Blue, Method 8131	2244500
Cyanide	≤ 0.2 mg/L	Pyridine-Pyrazolone, Method 8027	2430200
Phenolic Compounds**	≤ 1 mg/L	4-Aminoantipyrine, Method 8047	2243900
Formaldehyde**	≤ 1 mg/L	MBTH, Method 8110	2257700
Free Chlorine	≤ 1 mg/L	DPD, Method 8021	2105569 / AccuVac 2502025
Zinc (Zn)	≤ 5.0 mg/L	Zincon, Method 8009	2429300
Copper (Cu)	≤ 2.0 mg/L	Bicinchoninate, Method 8506	2105869
Manganese (Mn)**	≤ 5.0 mg/L	Periodate Oxidation, Method 8034	2430000
Hexavalent Chromium (Cr ⁶⁺)	≤ 0.25 mg/L	1,5-Diphenylcarbohydrazide, Method 8023	1271099
Total Chromium**	≤ 0.75 mg/L	Alkaline Hypobromite Oxidation, Method 8024	2242500
Lead (Pb)**	≤ 0.2 mg/L	Dithizone, Method 8033	2243100
Cadmium (Cd)**	≤ 0.03 mg/L	Dithizone, Method 8017	2242200
Barium (Ba)**	≤ 1.0 mg/L	Turbidimetric, Method 8014	1206499

*BOD (≤20 mg/L), pH, temperature, TDS/TSS, and oil & grease are measured separately with a BOD incubator / DO meter / pH meter / gravimetric oven. For certain heavy metals (Hg, As, Se, Ni), AAS is recommended for the highest accuracy.

**Check import permit requirements— reagents/test kits for this parameter may be subject to import controls; please verify with the relevant authority before ordering.

Why Choose Hach Spectrophotometers

Ready-to-Use Reagents

- TNT+ / Barcode / AccuVac auto-recognition minimizes operator error

Internationally Recognized

- Methods align with Standard Methods, USEPA and ISO — suitable for official regulatory reporting

Built-in GLP

- Logs Sample ID / Operator ID for full traceability, reducing paperwork (paperless)

Additional parameters not listed here (e.g. Arsenic, Mercury, Selenium, Nickel) are covered by 100+ validated methods in the Hach Methods Quick Reference Guide — contact the HACH Thailand team for instrument and reagent recommendations tailored to your specific parameters.



Hach Thailand

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