

# A Simple Solution for Precise Borate Readings

Our Borate Test Strips are a **simple solution** to testing for borates from 0–100 parts per million.

Our Borate Test Strips have many benefits:

- **fast, reliable results** in seconds
- **simple instructions** with pictograms
- **superior color standards** for color matching
- 24-month shelf life

**Our indicator bonds directly with borates in the sample, while other test strips in the market measure the pH shift caused by borates.** With this method **our strips are less affected by pH and alkalinity** and, as a result, are **less prone to interferences.**

## BORATE CORRECTION TO TOTAL ALKALINITY

**Borates will produce a “false-high” total alkalinity reading** which will need to be accounted for. Borates’ effect on total alkalinity will need to be considered when calculating water’s saturation index. **Follow the formula below to find the true carbonate alkalinity value** (this adjustment is pH-dependent).

Total Alkalinity results can be corrected for the presence of borate by the following procedure.

1. Select a borate factor ( $B_f$ ) based on measured pH:

2. Calculate the carbonate alkalinity ( $Alk_C$ ) from the measured total alkalinity ( $Alk_{TA}$ ), measured borate (B), and selected borate factor ( $B_f$ ):

$$Alk_C = Alk_{TA} - (B \times B_f)$$

For example:

pH = 7.6;  $Alk_{TA} = 100$  ppm; B = 50 ppm

$$Alk_C = Alk_{TA} - (B \times B_f)$$

$$Alk_C = 100 - (50 \times 0.17)$$

$$Alk_C = 92 \text{ ppm}$$

| pH  | $B_f$ |
|-----|-------|
| 6.5 | 0.05  |
| 7.0 | 0.08  |
| 7.2 | 0.10  |
| 7.4 | 0.13  |
| 7.6 | 0.17  |
| 7.8 | 0.24  |
| 8.0 | 0.34  |
| 8.5 | 0.83  |



## TEST STRIPS ARE ALSO AVAILABLE IN CASE PACKS:

### **Chlorine (S-1401-12)**

Tests for free chlorine, pH, total alkalinity, and cyanuric acid.

### **Bromine (S-1402-12)**

Tests for bromine, pH, total alkalinity, and total hardness.

### **7-Way (S-1403-12)**

Tests for free chlorine, total chlorine/bromine, pH, total alkalinity, total hardness, and cyanuric acid.

### **Service Pro (S-1351-6)**

Tests for free chlorine, total chlorine/bromine, pH, and total alkalinity.

### **Pro 7 (S-1352-6)**

Tests for free chlorine, total chlorine/bromine, pH, total alkalinity, total hardness, and cyanuric acid.

### **Salt (S-1341-12)**

Tests for sodium chloride.

### **Borate (S-1342-9)**

Tests for borate.

## USER BENEFITS

- **Consistent chemistry** from strip to strip and batch to batch.
- Shaker bottle **prevents spoilage** from moisture and air.
- **Label includes target ranges** generally accepted in the pool/spa industry.
- Retail packaging display cartons available.

