

LANGELIER SATURATION INDEX

$$SI = \text{pH} + \text{Temp}_f + \text{CH}_f + \text{TA}_f - \text{TDS}_f$$

pH as is
Temp factor
Calcium factor
Total Alkalinity Factor
Total Dissolved Solids factor

| Temperature | | Calcium Hardness Expressed as CaCO ₃ | | Total Carbonate Alkalinity | |
|-------------|-----|--|-----|----------------------------|-----|
| °F | Tf | ppm | Cf | ppm | Af |
| 32 | 0.0 | 25 | 1.0 | 25 | 1.4 |
| 37 | 0.1 | 50 | 1.3 | 50 | 1.7 |
| 46 | 0.2 | 75 | 1.5 | 75 | 1.9 |
| 53 | 0.3 | 100 | 1.6 | 100 | 2.0 |
| 60 | 0.4 | 125 | 1.7 | 125 | 2.1 |
| 66 | 0.5 | 150 | 1.8 | 150 | 2.2 |
| 76 | 0.6 | 200 | 1.9 | 200 | 2.3 |
| 84 | 0.7 | 250 | 2.0 | 250 | 2.4 |
| 94 | 0.8 | 300 | 2.1 | 300 | 2.5 |
| 105 | 0.9 | 400 | 2.2 | 400 | 2.6 |
| | | 800 | 2.5 | 800 | 2.9 |

If an actual measurement is not found in the chart, use the next greatest value.

| TDS Factor | |
|----------------------|----------------------|
| Less than 1,000 ppm | 1,000 ppm or Greater |
| Subtract 12.1 | Subtract 12.2 |