Table 12 – Saturation Index Factors

Temp (0C)	TF	Total Alkalinity	AF	Calcium Hardness	CF
0	0	5	0.7	5	0.3
3	0.1	25	1.4	25	1.0
8	0.2	50	1.7	50	1.3
12	0.3	75	1.9	75	1.5
16	0.4	100	2.0	100	1.6
19	0.5	150	2.2	150	1.8
24	0.6	200	2.3	200	1.9
29	0.7	300	2.5	300	2.1
34	0.8	400	2.6	400	2.3
41	0.9	800	2.9	800	2.5
51	1.0	1000	3.0	1000	2.6

Example

Consider a pool with the following water chemistry levels:

pH: 7.7 Temperature: 29 ^{0}C
Alkalinity: 100 mg/L Calcium Hardness: 200 mg/L

Using Table 12, the following values would be obtained:

Temperature Factor: 0.7
Alkalinity Factor: 2.0
Calcium Hardness: 1.9

The saturation index is calculated as:

$$SI = pH + TF + AF + CF - 12.1$$

$$= 7.7 + 0.7 + 2.0 + 1.9 - 12.1$$

$$= 0.2$$

INTERPRETING THE SI VALUE

The SI value should be maintained between -0.5 and 0.5.

When the SI value is less than -0.5, the water contains insufficient calcium, in relation to the levels of other materials. This may produce corrosion or etching of the facility.

When the SI value is more than 0.5, the water contains excess calcium, in relation to the levels of other materials. This may produce calcium deposits or scaling of the facility.