

CONSTANTELE STARII LICHIDE

VOLUME

1 US Gallon (gal)	= 231 Cubic inches (ft ³)
1 US Gallon (gal)	= 3,785 liters (l)
1 cubic foot (ft ³)	= 7.48 US Gallons (gal)
1 cubic foot (ft ³)	= 1728 Cubic inches (ft ³)
1 Cubic meter (m ³)	= 35.3 Cubic feet (ft ³)
1 US ounce (oz)	= 29.57 Milliliters (ml)

DENSITY

1 U.S. Gallon (gal)	= 8.33 Lb. Water
1 Cubic Foot (ft ³)	= 62.3 Lb. Water

TEMPERATURE

°F =	(°C X 9/5) + 32 °K	= °C + 273
°C =	(°F - 32) x 5/9 °K	= °F + 460

ABSOLUTE TEMPERATURE

MASS

1 Lb.	453.6 Grams (g.)	= 0.4536 Kilograms (Kg)
1 Lb.	7000 Grains (gr.)	
1 Kg	2.205 lb.	

PRESSURE

1 Atmosphere	= 14.7 Pounds Per Square Inch (psi)
1 Atmosphere	= 101.325 Kilo Pascal (KPa)
psia (absolute)	= psig (gauge)+ 14.7
14.7 psi	= 29.92 Inches Hg
9.92 In. Hg	= 33.83 Ft. H2O
1 Kg/cm ²	= 14.223 psi
1 KPa	= 0.145 psi

TOTAL DISSOLVED SOLIDS CONCENTRATION

1 Grains Per Gallon (gr/gal)	= 17.1 Parts Per Million (ppm)
1 Grains Per Gallon as NaCl	= 0.85 Grains Per Gallon as CaCO ₃
1 Part Per Million (ppm)	= 1 Milligram Per Liter (mg/l)
1 ppm as NaCl	= 0.85 ppm as CaCO ₃
1 ppm	= 1,000 Parts Per Billion (ppb)
	= 1,000,000 Parts Per Trillion (ppt)
1 ppb	= 1 Microgram Per Liter (µg/l)

RESISTIVITY/CONDUCTIVITY

$$\text{ohm-cm} = \frac{1}{\text{mho/cm}} = \frac{1}{\text{Siemens/cm}}$$

$$\text{megohm-cm} = \frac{1}{\text{micromhos/cm}} = \frac{1}{\text{microSiemens/cm}}$$

**COMMONLY USED CALCULATIONS FOR PURE WATER
ION EXCHANGE CAPACITY**

Cartridge Grain Capacity =Gallons Processed
Total Dissolved Solids
(Grains/Gal)

Cartridge Grain Capacity x
17.1 =Gallons Processed
Total Dissolved Solids (ppm)

Cartridge Grain Capacity x
64.7 = Liters Processed
Total Dissolved Solids (ppm)

CONSTANTELE APEI PURE

Conductivity Micromhos-cm. @25°C	Conductivity Micromhos-cm. @25°C	Dissolved Solids parts per Million (ppm)	Approximate Grains/Gallon (GPG) as CaCO ₃
0.056	18,000,000	0.0277	0.00164
0.059	17,000,000	0.0294	0.00170
0.063	16,000,000	0.0313	0.00181
0.067	15,000,000	0.0333	0.00193
0.072	14,000,000	0.0357	0.00211
0.077	13,000,000	0.0384	0.00222
0.084	12,000,000	0.0417	0.00240
0.091	11,000,000	0.0455	0.00263
0.100	10,000,000	0.0500	0.00292
0.111	9,000,000	0.0556	0.00322
0.125	8,000,000	0.0625	0.00368
0.143	7,000,000	0.0714	0.00415
0.167	6,000,000	0.0833	0.00485
0.200	5,000,000	0.100	0.00585
0.250	4,000,000	0.125	0.00731
0.333	3,000,000	0.167	0.00971
0.500	2,000,000	0.250	0.0146
1.00	1,000,000	0.500	0.0292
1.11	900,000	0.556	0.0322
1.25	800,000	0.625	0.0368
1.43	700,000	0.714	0.0415
1.67	600,000	0.833	0.0485
2.00	500,000	1.00	0.0585
2.50	400,000	1.25	0.0731

3.33	300,000	1.67	0.0971
5.00	200,000	2.50	0.146
10.0	100,000	5.00	0.292
11.1	90,000	5.56	0.322
12.5	80,000	6.25	0.368
14.3	70,000	7.14	0.415
16.7	60,000	8.33	0.485
20.0	50,000	10.0	0.585
25.0	40,000	12.5	0.731
33.3	30,000	16.7	0.971
50.0	20,000	25.0	1.46
100.0	10,000	50.0	2.92
111	9,000	55.6	3.22
125	8,000	62.5	3.68
143	7,000	71.4	4.15
167	6,000	83.3	4.85
200	5,000	100	5.85
250	4,000	125	7.31
333	3,000	167	9.71
500	2,000	250	14.6
1,000	1,000	500	29.2
1,110	900	556	32.2
1,250	800	625	36.8
1,430	700	714	41.5
1,670	600	833	48.5
2,000	500	1,000	58.5
2,500	400	1,250	73.1
3,330	300	1,670	97.1
5,000	200	2,500	146
10,000	100	5,000	292