

Viscosity (kinematic) conversion chart

cSt, mm²/s, m²/s, stokes. Factors are given to 7 significant figures; open the converter for full precision and the worked solution.

Conversion factors to square metres per second (m ² /s)		
UNIT	IN M ² /S	1 M ² /S IN UNIT
square metre per second (m ² /s)	1 m ² /s	1 m ² /s
square millimetre per second (mm ² /s)	0.000001 m ² /s	1,000,000 mm ² /s
centistokes (cSt)	0.000001 m ² /s	1,000,000 cSt
stokes (St)	0.0001 m ² /s	10,000 St
square foot per second (ft ² /s)	0.09290304 m ² /s	10.76391 ft ² /s
square inch per second (in ² /s)	0.00064516 m ² /s	1,550.003 in ² /s

cSt → m ² /s	
CST	M ² /S
0.1 cSt	1 × 10 ⁻⁷ m ² /s
0.5 cSt	5 × 10 ⁻⁷ m ² /s
1 cSt	0.000001 m ² /s
2 cSt	0.000002 m ² /s
5 cSt	0.000005 m ² /s
10 cSt	0.00001 m ² /s
20 cSt	0.00002 m ² /s
25 cSt	0.000025 m ² /s
50 cSt	0.00005 m ² /s
100 cSt	0.0001 m ² /s
250 cSt	0.00025 m ² /s
500 cSt	0.0005 m ² /s
1,000 cSt	0.001 m ² /s

m ² /s → cSt	
M ² /S	CST
0.1 m ² /s	100,000 cSt
0.5 m ² /s	500,000 cSt
1 m ² /s	1,000,000 cSt
2 m ² /s	2,000,000 cSt
5 m ² /s	5,000,000 cSt
10 m ² /s	10,000,000 cSt
20 m ² /s	20,000,000 cSt
25 m ² /s	25,000,000 cSt
50 m ² /s	50,000,000 cSt
100 m ² /s	100,000,000 cSt
250 m ² /s	250,000,000 cSt
500 m ² /s	500,000,000 cSt
1,000 m ² /s	1,000,000,000 cSt

Formula: $m^2/s = cSt \times 0.000001$