

Stress conversion chart

MPa, GPa, N/mm², psi, ksi. Factors are given to 7 significant figures; open the converter for full precision and the worked solution.

Conversion factors to pascals (Pa)		
UNIT	IN PA	1 PA IN UNIT
megapascal (MPa)	1,000,000 Pa	0.000001 MPa
gigapascal (GPa)	1,000,000,000 Pa	1 × 10 ⁻⁹ GPa
kilopascal (kPa)	1,000 Pa	0.001 kPa
pascal (Pa)	1 Pa	1 Pa
newton per square millimetre (N/mm ²)	1,000,000 Pa	0.000001 N/mm ²
pound per square inch (psi)	6,894.757 Pa	0.0001450377 psi
kip per square inch (ksi)	6,894,757 Pa	1.450377 × 10 ⁻⁷ ksi
pound-force per square foot (lbf/ft ²)	47.88026 Pa	0.02088543 lbf/ft ²
bar (bar)	100,000 Pa	0.00001 bar
kilogram-force per cm ² (kgf/cm ²)	98,066.5 Pa	0.00001019716 kgf/cm ²

psi → MPa	
PSI	MPa
0.1 psi	0.0006894757 MPa
0.5 psi	0.003447379 MPa
1 psi	0.006894757 MPa
2 psi	0.01378951 MPa
5 psi	0.03447379 MPa
10 psi	0.06894757 MPa
20 psi	0.1378951 MPa
25 psi	0.1723689 MPa
50 psi	0.3447379 MPa
100 psi	0.6894757 MPa
250 psi	1.723689 MPa
500 psi	3.447379 MPa
1,000 psi	6.894757 MPa

MPa → psi	
MPa	PSI
0.1 MPa	14.50377 psi
0.5 MPa	72.51887 psi
1 MPa	145.0377 psi
2 MPa	290.0755 psi
5 MPa	725.1887 psi
10 MPa	1,450.377 psi
20 MPa	2,900.755 psi
25 MPa	3,625.943 psi
50 MPa	7,251.887 psi
100 MPa	14,503.77 psi
250 MPa	36,259.43 psi
500 MPa	72,518.87 psi
1,000 MPa	145,037.7 psi

Formula: $MPa = psi \div 145.0377377$

