

Practical conversion table for earth pressures loaded by the soil prism directly above the pipe



Kilopascal Kilonewton / meter ²	Kilogram / meter ²	Kilogram / centimeter ²	Newton / meter ²	Newton / centimeter ²
kPa = kN/m ²	kgf/m ²	kgf/cm ²	N/m ²	N/cm ²
1	102	0,0102	1000	0,1
5	510	0,051	5000	0,5
10	1020	0,102	10000	1
15	1530	0,153	15000	1,5
20	2040	0,204	20000	2
25	2550	0,255	25000	2,5
30	3060	0,306	30000	3
35	3570	0,357	35000	3,5
40	4080	0,408	40000	4
45	4590	0,459	45000	4,5
50	5100	0,510	50000	5
55	5610	0,561	55000	5,5
60	6120	0,612	60000	6
65	6630	0,663	65000	6,5
70	7140	0,714	70000	7
75	7650	0,765	75000	7,5
80	8160	0,861	80000	8
85	8670	0,867	85000	8,5
90	9180	0,918	90000	9
95	9690	0,969	95000	9,5
100	10200	1,02	100000	10
105	10710	1,071	105000	10,5
110	11220	1,122	110000	11
115	11730	1,173	115000	11,5
120	12240	1,224	120000	12
125	12750	1,275	125000	12,5
130	13260	1,326	130000	13
135	13770	1,377	135000	13,5
140	14280	1,428	140000	14
145	14790	1,479	145000	14,5
150	15300	1,53	150000	15
155	15810	1,581	155000	15,5
160	16320	1,632	160000	16

FORCE = MASS * ACCELERATION

1kp (kilopond) = 1kgf (kilogram-force) = 9,81N (Newton) = 1 kg × 9,80665 m/s²

Kilogram-force (kgf) or kilopond (kp) is the force exerted on one kilogram of mass in a 9.80665 m/s² standard earth gravity. Therefore, one kilogram-force is by definition equal to 9.80665 N

PRESSURE = FORCE / AREA

1kPa = 1 kN/m² = 102 kgf/m² = 0,0102 kgf/cm² = 10,2 gf/cm² = 1000 N/m² = 0,1 N/cm²

Pascal is the pressure exerted by a force of magnitude one newton perpendicularly upon an area of one square meter