

Deck Quick-Reference Chart: Boards, Screws, Concrete & Stain

The ratios behind our deck calculators on one page: linear feet of decking per 100 sq ft, screws per 100 sq ft, concrete per footing and stain per gallon.

Deck boards (3/16 in gap)

Board width	Rows per ft of deck width	Linear ft per 100 sq ft	With 10% waste	Boards across a 12 ft deck (+10%)
3.5" (1×4, 5/4×4)	3.25	325	358	43
5.5" (1×6, 5/4×6), standard	2.11	211	232	28
7.25" (1×8)	1.61	161	177	22

Rows per foot = $12 \div (\text{board width} + \text{gap})$. Boards needed = deck width (in) $\div$ (board width + gap), + 10% for cuts and defects, each as long as the deck. Same formula as the deck board calculator.

Face screws for 5.5 in boards

Joist spacing	Screws per 100 sq ft (2 per joist, +10%)	Pounds (≈ 90 per lb, 2-1/2 in #9)	Hidden clips per 100 sq ft (1 per joist, +10%)
12" on center	465	6	233
16" on center	349	4	175
24" on center	233	3	117

A 5 lb box holds roughly 425–475 deck screws. Composite boards: use the fastener and spacing the board maker specifies.

Footing concrete

Tube diameter	Cu ft per ft of depth	80 lb bags per ft	60 lb bags per ft	Cu ft for 42 in deep + 4 in above	80 lb bags for that footing
8"	0.35	0.6	0.8	1.34	3
10"	0.55	0.9	1.2	2.09	4
12"	0.79	1.3	1.7	3.01	6
16"	1.40	2.3	3.1	5.35	9
18"	1.77	2.9	3.9	6.77	12
24"	3.14	5.2	7.0	12.04	21

Volume = $\pi \times (\text{diameter} \div 2)^2 \times \text{depth}$. An 80 lb bag yields about 0.60 cu ft and a 60 lb bag about 0.45 cu ft. Add 10% for spillage and uneven holes. Footing size and depth (frost line) come from your local code.

Stain, railing and joists

What	Rule of thumb used by our calculators
Stain / sealer	Gallons = deck sq ft $\times$ coats $\div$ coverage per gallon (200 sq ft is our default; use the can's figure). Rough or weathered wood drinks more.
Balusters	Count = railing length (in) $\div$ on-center spacing (in), rounded up. Many codes require openings that a 4 in sphere cannot pass through.
Joists	Count = deck width (in) $\div$ spacing (in), rounded down, + 1. Plus rim joists and a ledger. Joist size and span: use your code's span table.
Joist tape	(Joist linear ft + rim ft) $\times$ 1.1 for laps $\div$ roll length.