

ESTIMATING DATA

The following is based on standard information.
All roofs vary so clients must take special care whilst calculating quantities.

Tile Calculator for Elite and Tuff Tiles

Rafter Length		2 583	2 952	3 321	3 690	4 059	4 428	4 797	5 166	5 535	5 904	6 273	6 642	7 011	7 380	
Eaves Length (m)		7	8	9	10	11	12	13	14	15	16	17	18	19	20	
	3 208	2	14	16	18	20	22	24	26	28	30	32	34	36	38	40
	4 812	3	21	24	27	30	33	36	39	42	45	48	51	54	57	60
	6 416	4	28	32	36	40	44	48	52	56	60	64	68	72	76	80
	8 020	5	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	9 624	6	42	48	54	60	66	72	78	84	90	96	102	108	114	120
	11 228	7	49	56	63	70	77	84	91	98	105	112	119	126	133	140
	12 832	8	56	64	72	80	88	96	104	112	120	128	136	144	152	160
	14 436	9	63	72	81	90	99	108	117	126	135	144	153	162	171	180
	16 040	10	70	80	90	100	110	120	130	140	150	160	170	180	190	200
	17 644	11	73	88	99	110	121	132	143	154	165	176	187	198	209	220

Useful Constant Table

	Ridge to Gutter	Hip Length Std/ Valley Length
15*	1 042	1 445
20*	1 064	1 460
25*	1 103	1 488
30*	1 155	1 528
35*	1 221	1 578
40*	1 305	1 644
45*	1 414	1 732
50*	1 556	1 850
55*	1 643	2 009
Batten Centres		Tile m ²
Elite	369 c/c	1,7
Tuff	369 c/c	1,7
Roma	369 c/c	1,7
Academy	369 c/c	1,66
Shaketile	350 c/c	1,76

Tile Calculator for Sharktile and Thatch Tiles

Rafter Length		2 450	2 800	3 150	3 500	3 850	4 200	4 550	4 900	5 250	5 600	6 950	6 300	6 650	7 000	
Eaves Length (m)		7	8	9	10	11	12	13	14	15	16	17	18	19	20	
	3 240	2	14	16	18	20	22	24	26	28	30	32	34	36	38	40
	4 860	3	21	24	27	30	33	36	39	42	45	48	51	54	57	60
	6 480	4	28	32	36	40	44	48	52	56	60	64	68	72	76	80
	8 100	5	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	9 720	6	42	48	54	60	66	72	78	84	90	96	102	108	114	120
	11 340	7	49	56	63	70	77	84	91	98	105	112	119	126	133	140
	12 960	8	56	64	72	80	88	96	104	112	120	128	136	144	152	160
	14 580	9	63	72	81	90	99	108	117	126	135	144	153	162	171	180
	16 200	10	70	80	90	100	110	120	130	140	150	160	170	180	190	200
	17 820	11	73	88	99	110	121	132	143	154	165	176	187	198	209	220

There are two common ways of estimating tiles and accessories for a building. Type "A" is the rafter length method and Type "B" is the roof area method.

a) First determine rafter length:

Span \div 2 = 3 000
 3 000 x 1 155 (constant for 30°)
 = 3 465 m \div tile batt centre
 = number of courses of tiles from ridge to gutter
 ie. 3 465 \div 369 (Elite) = 9.39 therefore 10 rows of tiles

Now take overall length and \div tile cover
 12 000 \div 1.6 = 7.5 tiles (1 side calc.)

Conclusion: therefore 7.5 x 10 rows = 75 tiles x 2 for both sides.
 Therefore 75 x 2 = 150 tiles. Rake and waste as well as ridges and hips must now be calculated.

Hips Calculation

Take 1/2 span of overall and multiply by hip constant for 30° (Useful Constant Table)

3 000 x 1 528 = 4 584 L/m

There are two such hips therefore total hip length is

4 584 x 2 = 9 168

This figure can be divided by the relevant cover of the accessory required ie. Hip Caps or Ridges.

Hips Rake and Waste

Take the total hip length and multiply by .3 and then by 2 (for both sides of hip or valley cut)

4 584 x 0.3 = 1 375m

1 375m² x 2 = 2.75m of extra tiles required

Therefore 2.75 x 1.72 = 4.73 tiles rounded off = 5 tiles. Therefore 5 tiles required per hip x 2 hips. 10 tiles for cutting are required.

Valleys

Calculate your valleys with the same formula as shown for hip and hips rake and waste.

Ridges

Scale off plan and take total length of ridge and divide by appropriate ridge cover to determine quantity required.

