

CONCRETE ROOF TILES

Independent cost comparison of a complete roof for a 134m² house



Concrete Roof Tiles make the difference!





INTRODUCTION

Concrete roof tiles are the most cost-effective roof covering. By using concrete roof tiles investors and specifiers alike can be assured of a long-lasting roof covering with an aesthetically pleasing appearance.

An independent survey was carried out to verify the cost-effectiveness of concrete roof tiles. These cost comparisons are the result of input from many sources and were co-ordinated by Mr Victor Booth Pr Eng.-a consulting engineer specialising in roofs. The Concrete Manufacturers Association gratefully acknowledges the efforts of all participants in helping to formulate the data and the results.

A medium sized house of 134m² was used to illustrate the comparisons shown in the graph. The prices shown in the graphs are for a complete erected roof structure covered with the appropriate material. Fascia boards and gutters have been excluded. No provision has been made for either an underlay membrane or ceiling construction. Truss prices at the coast would be more expensive due to the timber treatment requirement in such areas.

The 26° roof pitch for concrete tiles does not require an undertile membrane although it is recommended as a dust excluder and would cost approx R12/m² installed. It should be noted that other roof covering materials also require membranes but often of a more expensive nature.

ASSUMPTIONS

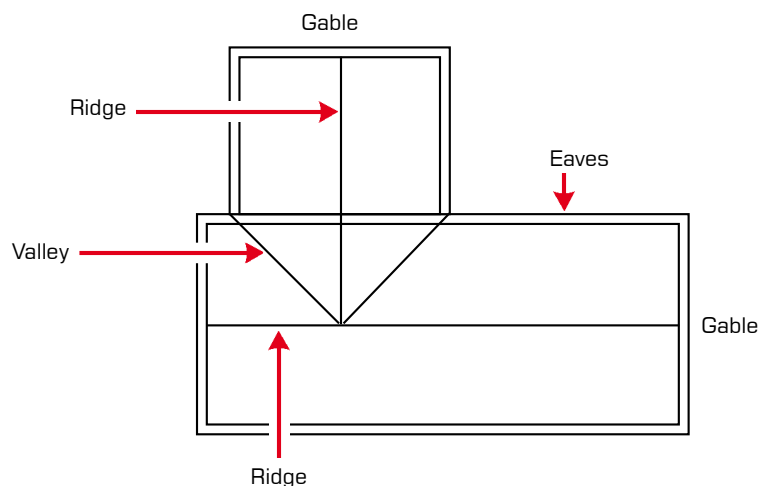
Certain assumptions have been made to simplify the costing model. It is assumed that this type of house is built as a "one off". Therefore, no volume discounts have been taken into account. The roof pitches are at 26° as it was felt that the roof would, in most circumstances, want to be made an architectural feature of the building. It is false economy to think that lower pitched roofs save on roofing material; they also increase the cost of the support structure.

METHODOLOGY

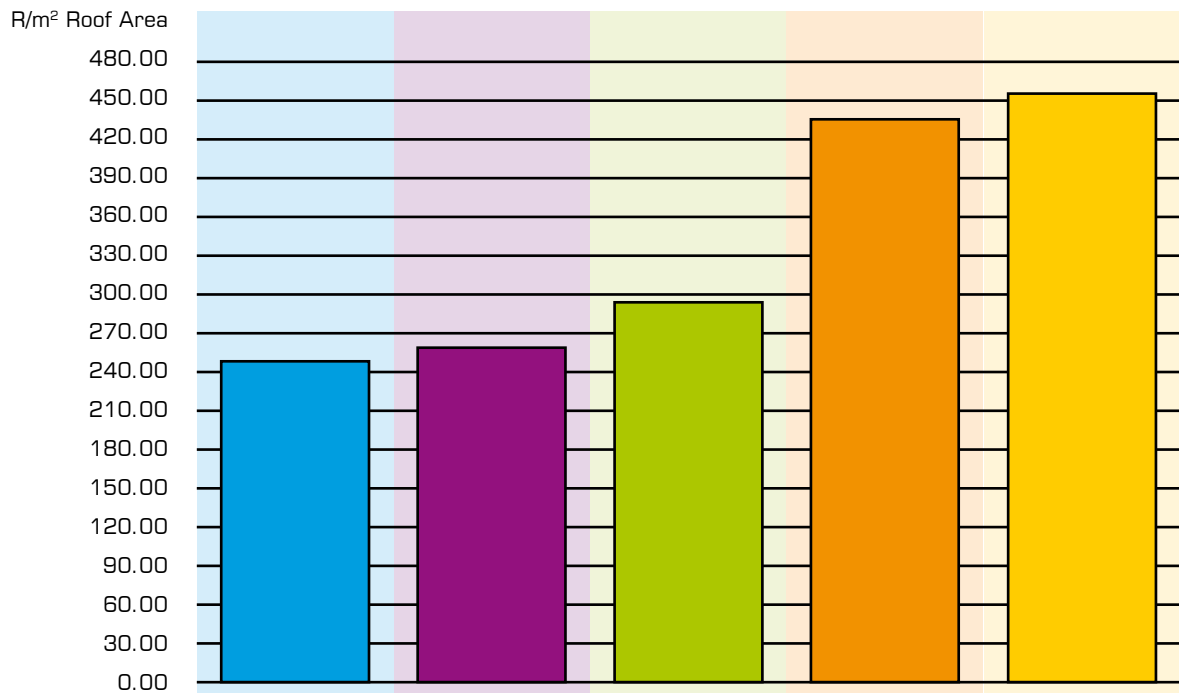
The design parameters for this roof structure are fixed, viz. pitch, span, overhangs etc., as well as the costing data for the various components. If the truss prices are not 100% accurate, the relationship between the various truss prices, based on material and labour content, will always be the same. That is, if all the truss prices were multiplied by 1.3 (i.e. add 30%) due to material and labour price increases, the general relationships between the different costs, as depicted graphically, would not change. The figures relate to a "snapshot" in time. Inflationary price increases of materials and labour vary from product to product, as does the timing of the increases.

Disclaimer:-

Whilst every effort has been made to ensure accuracy of the results they are intended to be used as a guide only and not as a methodology for costing roofs. We can take no responsibility for misuse or misunderstanding of the data.



COST COMPARISON



ROOF COVERING	THROUGH COLOUR CONCRETE ROOF TILES	PRE-PAINTED IBR METAL SHEETING	PRESSED METAL TILES	NATURAL SLATE	FIBRE CEMENT SLATE
SPECIFICATION					
FLOOR AREA (m ²)	134	134	134	134	134
ROOF AREA (on slope m ²)	180	180	180	180	180
RIDGE CAPPING	Tapered Ridge	Ridge Cap	Angle Ridge	N/A	N/A
PITCH	26°	26°	26°	26°	26°
TRUSS SPACING	760mm c/c max	1 200mm c/c max	1 100mm c/c max	760mm c/c max	900mm c/c max
BATTEN SPACING	345mm c/c max		369mm c/c max	190mm c/c max	250mm c/c max
PURLIN SPACING		1 150mm c/c max			
GABLE OVERHANG	300mm	300mm	300mm	300mm	300mm
TRUSS SPAN	6 300mm	6 300mm	6 300mm	6 300mm	6 300mm
EAVES OVERHANG	600mm	600mm	600mm	600mm	600mm
COSTS					
TRUSSES and SUNDRIES	17 549.00	15 391.00	14 184.00	20 083.00	18 451.00
ROOF ERECTION	5 400.00	4 500.00	5 400.00	6 300.00	5 400.00
ROOFING MATERIAL INCLUDING FIXING	21 884.00	26 966.00	33 559.00	52 363.00	57 856.00
TOTAL COST OF ROOF	44 833.00	46 857.00	53 143.00	78 746.00	81 707.00
COST R/m² FLOOR AREA (excl VAT)	334.00	350.00	397.00	588.00	610.00
COST R/m² ROOF AREA (excl VAT)	249.00	260.00	295.00	437.00	454.00

Notes

- Roof truss prices are based on a standard industry pricing practice.
- All prices used in the cost comparison are based on 2009 (August) figures. (excluding trade discounts)
- Labour costs for the erecting of the timber structure and the fixing of the roof covering material are included in the cost comparison.
- General sundries exclude fascia boards and barge boards.
- The cost of gable masonry has been excluded as it is a "constant" for all roofs.
- Above rates exclude VAT.
- Waste is included in all calculations



CONCRETE ROOF TILE DIVISION MEMBERS - OCTOBER 2009

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Infraset	Midrand	Gauteng	(012) 652 0080	(021) 652 0132
Marley Roofing	Olifantsfontein	Gauteng	(011) 316 2121	(011) 316 4138
	Cape Town	Western Cape	(021) 374 1018	(086) 543 3984
	Ekaandustria	Mpumalanga	(013) 933 3351	(013) 933 3436
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