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 26º 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.

**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 26º 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

<table>
<thead>
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<th>R/m² Roof Area</th>
<th>0.00</th>
<th>30.00</th>
<th>60.00</th>
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<td><strong>R/m² Roof Area</strong></td>
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<td><strong>ROOF COVERING</strong></td>
<td><strong>THROUGH COLOUR CONCRETE ROOF TILES</strong></td>
<td><strong>PRE-PAINTED IBR METAL SHEETING</strong></td>
<td><strong>PRESSED METAL TILES</strong></td>
<td><strong>NATURAL SLATE</strong></td>
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<td><strong>SPECIFICATION</strong></td>
<td><strong>FLOOR AREA (m²)</strong></td>
<td><strong>ROOF AREA (on slope m²)</strong></td>
<td><strong>RIDGE CAPPING</strong></td>
<td><strong>PITCH</strong></td>
<td><strong>TRUSS SPACING</strong></td>
<td><strong>BATTEN SPACING</strong></td>
<td><strong>PURLIN SPACING</strong></td>
<td><strong>GABLE OVERHANG</strong></td>
<td><strong>TRUSS SPAN</strong></td>
<td><strong>EAVES OVERHANG</strong></td>
<td><strong>TRUSSES and SUNDRIES</strong></td>
<td><strong>ROOF ERECTION</strong></td>
<td><strong>ROOFING MATERIAL</strong></td>
<td><strong>INCLUDING FIXING</strong></td>
<td><strong>TOTAL COST OF ROOF</strong></td>
<td><strong>COST R/m² FLOOR AREA (excl VAT)</strong></td>
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<td>26°</td>
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<td><strong>TOTAL COST OF ROOF</strong></td>
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<td><strong>46 857.00</strong></td>
<td><strong>53 143.00</strong></td>
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<td><strong>INCLUDING FIXING</strong></td>
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### 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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Bafokeng Concor Technicrete | Rustenburg | North West | (014) 538 0818 | (014) 538 0806  
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Concor Technicrete | Johannesburg | Gauteng | (011) 674 6900 | (011) 672 1425  
Polokwane | Northern Province | (015) 293 8083 | (015) 293 8743  
White River | Mpumalanga | (013) 758 1203 | (013) 758 1054  
Eagle Roof Tiles | Cape Town | Western Cape | (021) 931 3471 | (021) 931 9056  
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Port Elizabeth | Eastern Cape | (041) 372 1607 | (041) 372 1609  
Inca Masonry Products | East London | Eastern Cape | (043) 745 1215 | (043) 745 1501  
Infraset | Midrand | Gauteng | (012) 652 0080 | (021) 652 0132  
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