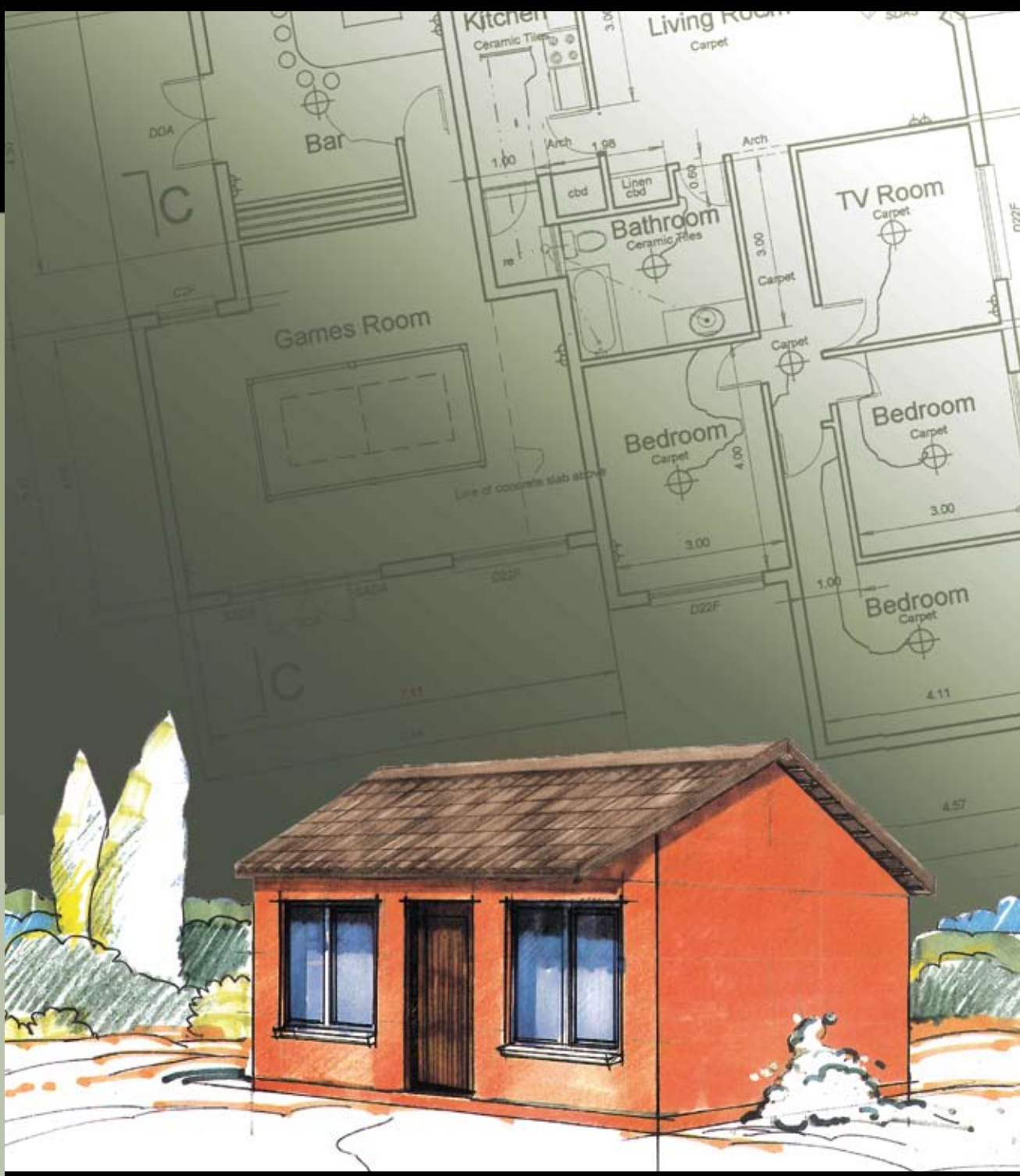


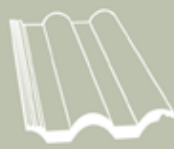
CONCRETE ROOF TILES

Independent cost comparison of a complete roof for a 57m² 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 small house of 57m² 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

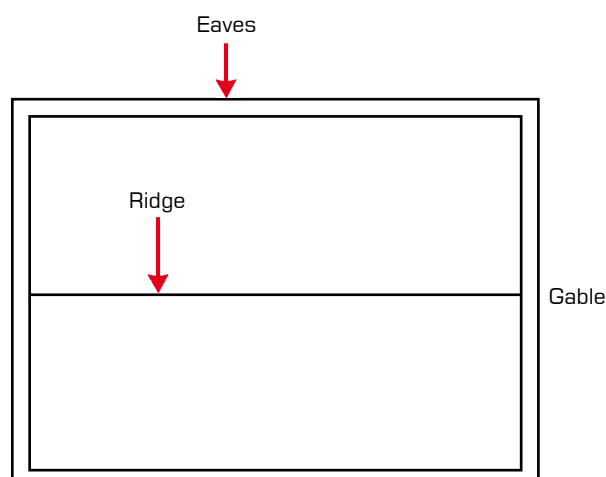
Certain assumptions have been made to simplify the costing model. It is assumed that this type of house is not built as a "one off" but as a development and therefore the costs are based on a development of 500 houses and the "normal" volume discounts have been taken into account.

METHODOLOGY

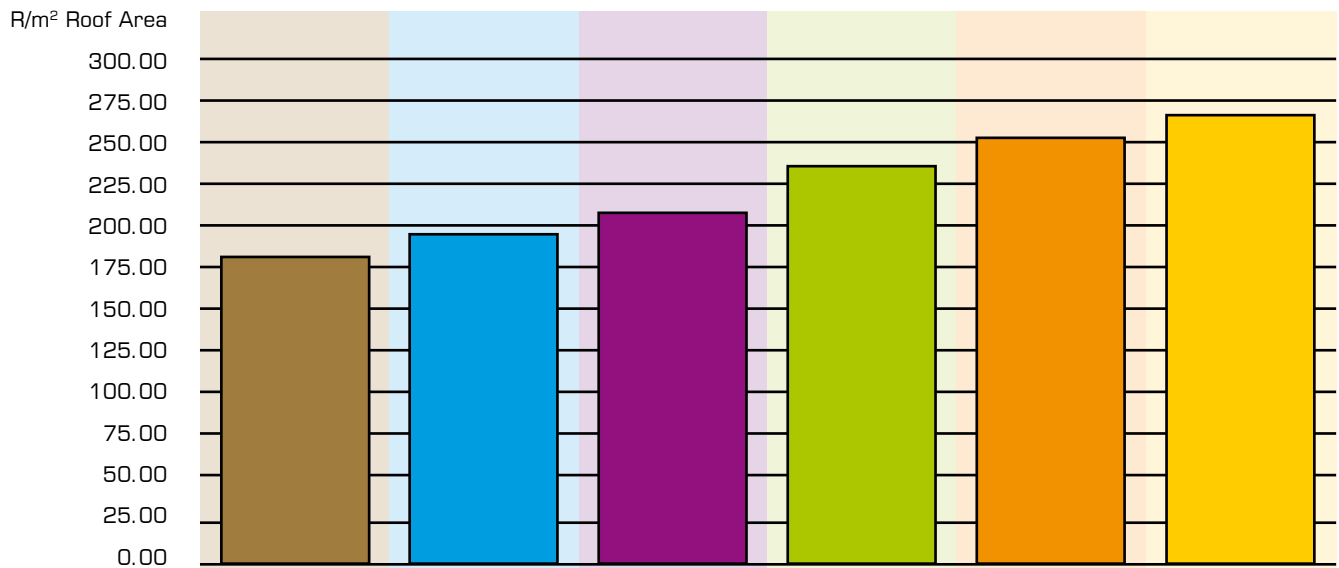
The design parameters for this roof structure are fixed, viz. span, overhangs etc., as well as the costing data for the various components. The most common roof pitches for each material were used in the respective costings. Erected truss prices for this roof structure varied by only approx 15%. If the 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.



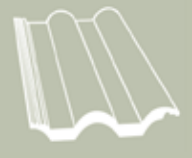
COST COMPARISON



ROOF COVERING	CMA ROOFING SYSTEM WITH CONCRETE ROOF TILES	CONVENTIONAL TIMBER TRUSSES WITH CONCRETE ROOF TILES	CORRUGATED IRON SHEETTING	PRE-PAINTED IBR METAL SHEETTING	CORRUGATED FIBRE CEMENT SHEETTING	PRESSED METAL TILES
SPECIFICATION						
FLOOR AREA (m ²)	57	57	57	57	57	57
ROOF AREA (on slope m ²)	74	74	70	69	69	71
RIDGE CAPPING	Tapered Ridge	Tapered Ridge	Metal Ridge cap 455mm girth	Metal Ridge cap 455mm girth	Special Ridge cap	Angle Ridge
PITCH	26°	26°	17,5°	15°	15°	20°
TRUSS SPACING	900mm c/c max	760mm c/c max	1 200mm c/c max	1 200mm c/c max	1 200mm c/c max	1 100mm c/c max
BATTEN SPACING	345mm c/c max	345mm c/c max				369mm c/c max
PURLIN SPACING			1 150mm c/c max	1 150mm c/c max	1 150mm c/c max	
GABLE OVERHANG	300mm	300mm	300mm	300mm	300mm	300mm
TRUSS SPAN	6 300mm	6 300mm	6 300mm	6 300mm	6 300mm	6 300mm
EAVES OVERHANG	300mm	300mm	300mm	300mm	300mm	300mm
COSTS						
TRUSSES/TIMBER						
SUNDRIES	5 056.00	6 033.00	5 295.00	5 295.00	5 295.00	5 090.00
ROOF ERECTION	2 100.00	2 100.00	1 760.00	1 760.00	1 760.00	2 100.00
ROOFING MATERIAL INCLUDING FIXING	6 600.00	6 600.00	6 883.00	9 108.00	11 636.00	11 745.00
TOTAL COST OF ROOF	13 756.00	14 733.00	13 938.00	16 163.00	18 691.00	18 935.00
COST R/m ² FLOOR AREA (excl VAT)	241.00	258.00	245.00	284.00	328.00	332.00
COST R/m ² ROOF AREA (excl VAT)	186.00	199.00	202.00	234.00	253.00	267.00

Notes

- Roof truss prices are based on a standard industry pricing practice for large "repetitive" housing contracts.
- All prices used in the cost comparison are based on 2009 (August) figures.
- 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.
- Above rates exclude VAT.
- Waste is included in all calculations



CONCRETE ROOF TILE DIVISION MEMBERS - OCTOBER 2009

Company Name	Address	Province	Phone Number	Fax Number
Bafokeng Concor Technicrete	Rustenburg	North West	(014) 538 0818	(014) 538 0806
Brikor Roofing	Olifantsfontein	Gauteng	(011) 316 1200	(011) 316 1380
Concor Technicrete	Johannesburg	Gauteng	(011) 674 6900	(011) 672 1425
	Polokwane	Northern Province	(015) 298 8083	(015) 298 8743
	White River	Mpumalanga	(013) 758 1203	(013) 758 1054
Coverland (Monier Roofing South Africa)	Johannesburg	Gauteng	(011) 222 7300	(011) 222 7470
	Bloemfontein	Free State	(051) 432 4681	(051) 432 5089
	Brits	North West	(012) 250 2964	(012) 250 2218
	Camperdown	KwaZulu-Natal	(031) 785 1009	(031) 785 1009
	Cape Town	Western Cape	(021) 534 1441	(021) 534 7851
	Durban	KwaZulu-Natal	(031) 565 2911	(031) 565 1312
	East London	Eastern Cape	(043) 743 2189	(043) 743 2191
	George	Western Cape	(044) 878 1324	(044) 878 1325
	Germiston	Gauteng	(011) 866 2462	(011) 866 2941
	Port Elizabeth	Eastern Cape	(041) 463 1155	(041) 463 2629
	Queensburgh	KwaZulu-Natal	(031) 463 1752	(031) 464 2247
	Richards Bay	KwaZulu-Natal	(035) 797 4961	(035) 797 4096
	Vereeniging	Gauteng	(016) 430 8000	(016) 430 8071
Eagle Roof Tiles	Cape Town	Western Cape	(021) 931 3477	(021) 931 9056
	East London	Eastern Cape	(043) 745 2775	(043) 745 2775
	George	Western Cape	(044) 874 0290	(044) 874 0282
	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
Marley Roofing	Olifantsfontein	Gauteng	(011) 316 2121	(011) 316 4138
	Cape Town	Western Cape	(021) 374 1018	(086) 543 3984
	Ekandustria	Mpumalanga	(013) 933 3351	(013) 933 3436
	Gaborone	Botswana	(00267) 392 2922	(00267) 397 2671
	Nelspruit	Mpumalanga	(013) 755 2791	(013) 755 2837
	Tongaat	KwaZulu-Natal	(032) 944 4155	(032) 944 7796



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