CONCRETE ROOF TILES



The CMA Roofing System™





Concrete Roof Tiles make the difference!





USE

The certificate covers the CMA Roofing System™ for use on affordable housing where the roof covering is concrete roof tiles that are produced exclusively by bona fide members of the Roof Tile Division of the Concrete Manufacturers Association (CMA). The tiles form an integral part of the system and are laid on 38 by 38 mm SA pine tiling battens fixed to innovative nail-plate (fink) timber roof trusses placed on and anchored to the superstructure walls at 900mm centres.

CMA roofs are suitable for the construction of double-pitch roofs covered with concrete roof tiles on buildings for the uses (**SANS 10400**: Table 1 of Regulation A(20)(1)) set out below.

- semi-detached houses and row houses (H3)
- detached houses and related outbuildings (H4).

This certificate and Agrément South Africa's assessment apply only to CMA Roofing System™ roofs that are manufactured, erected and braced as described and illustrated in this certificate and where the terms and conditions of certification are complied with.

GENERAL DESCRIPTION

The CMA Roofing System™ comprises:

- prefabricated nail-plate (fink) timber roof trusses:
 - with a maximum ceiling tie length of 6 600 mm (measured on the underside of the tie),
 - · with a roof pitch of 26 degrees
 - manufactured from 76 mm x 38 mm timber members (Grade 5 timber) that are joined together using 1 mm thick galvanised steel connector plates.
 - that are erected, braced and anchored in accordance with good building practice,
- 38 mm x 38 mm SA pine tiling battens (Grade 5 timber) fixed to the trusses at not more than 345 mm centres,
- roof covering of concrete roof tiles (not exceeding 48,10 kg/m² after installation and measured on the slope of the roof).

The system utilises only quality concrete roof tiles that are manufactured by bona fide members of the Roof Tile Division of the Concrete Manufacturers Association (CMA).



COST COMPARISON



ROOF COVERING	CMA ROOFING SYSTEM™ WITH CONCRETE ROOF TILES	CONVENTIONAL TIMBER TRUSSES WITH STEEL SHEETING
FLOOR AREA (m²) ROOF AREA (on slope m²) RIDGE CAPPING PITCH TRUSS SPACING BATTEN SPACING PURLIN SPACING GABLE OVERHANG TRUSS SPAN EAVES OVERHANG	57 74 Tapered Ridge 26° 900mm c/c max 345mm c/c max 300mm 6 300mm	57 69 Metal Ridge Cap 15° 1 200mmc/c max 1 150mmc/c max 300mm 6 300mm
COSTS TRUSSES/TIMBER/ SUNDRIES ROOF ERECTION ROOFING MATERIAL INCLUDING FIXING TOTAL COST OF ROOF	3 337.00 1 221.00 4 174.00 8 732.00	3 851.00 1 366.00 4 929.00 10 146.00
COST R/m² FLOOR AREA (excl VAT)	153.00 118.00	178.00 178.00 147.00





Notes

- Roof truss prices are based on a standard industry pricing practice.
- All prices used in the cost comparison are based on 2004 (April) figures.
- Labour costs for the erecting of the timber
- structure and the fixing of the roof covering material are included in the cost comparison.
- Sundries exclude fascia boards and barge boards.
- Above rates exclude VAT.
- Waste is included in all calculations

