



Central Building Research Institute

Roorkee

Roof Surface Evaporative Cooling of Buildings



Application/Uses:

- * Provides a cool roof in buildings for thermal comfort.
- * Saves electrical energy in air-conditioned buildings.

Salient Technical Features:

The roof is kept covered with a moist mat by a simple electronically controlled water sprinkling mechanism. Temperature of the roof surface drops by about 25° C. in hot dry summer, cooled roof gradually cools the indoor environment without adding humidity.

Environmental Aspects:

Environment-friendly.

Level/Scale of : Development

- * Production technology for domestic unit.
- * Design services for larger/commercial complexes.

Status of Commercialisation:

Already in use on many private and commercial buildings.

Major Components/: Raw Materials

Jute/ Coir mat, water-pump, water-sprinklers, electronic-controlling unit, moisture sensors, G.I. pipes and fittings.

Major Plant Equipment: and Machinery

Small mechanical workshop with facilities for simple electronic assembly.

Techno-Economics:

- * Installation cost Rs. 300/sqm. of roof area
- * Water consumption : 6 to 9 ltrs/sq.m./ day.

Technology Package:

Know-how for commercial production of domestic unit.

For further details please contact :

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