

1. How do I keep a COOL HOME?



Are you tired of feeling uncomfortable indoors during summer?
Are your electricity bills rising because of fans and coolers running all day?

This toolkit shares easy, low-cost tips for cooling your home naturally during hot summers.

Why does your home get so hot?

If your roof has no insulation, especially if it's made of metal, it will get very hot in the summer and make your home hotter.

This can cause higher electricity bills and may affect your and your family's health.



Tips to keep your **HOUSE COOL**



1. Provide windows in all rooms
2. Provide tree shade on the west and south side of the house
3. Provide open space or courtyards to improve air circulation
4. Provide high ceilings with ventilator slits in all rooms
5. Use jaalis wherever possible
6. Provide chajjas over all windows

If you have already built your house, what can you do to keep it cool?

A.

WHITE INSULATION ROOF PAINT

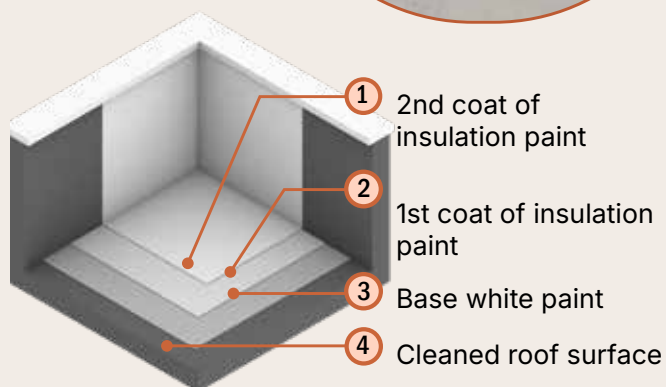
This method includes multiple coats of insulation paint, and can easily be applied on an existing roof surface.



On Concrete Roof



On Metal Sheet Roof



Points to note!

- ✓ Clean the roof surface well
- ✓ Apply one coat of white insulation paint
- ✓ Wait till its dry, and then apply the second coat of paint
- ✓ Maintain regularly and reapply coat as needed
- ✓ Avoid roof treatment during rainy season



Have an existing roof that you would like to heatproof, and be able to use in all seasons?

B. GREEN NET SHADING

This method involves installing a shed on the roof using inexpensive materials that allows you to use the space all year round, while keeping the floor below cool.



① Green net

② Metal frame

③ Existing terrace



Large usable area on the roof



Fibre shade can be used

These methods are very easy to install, and affordable! Ask your local contractor about them.

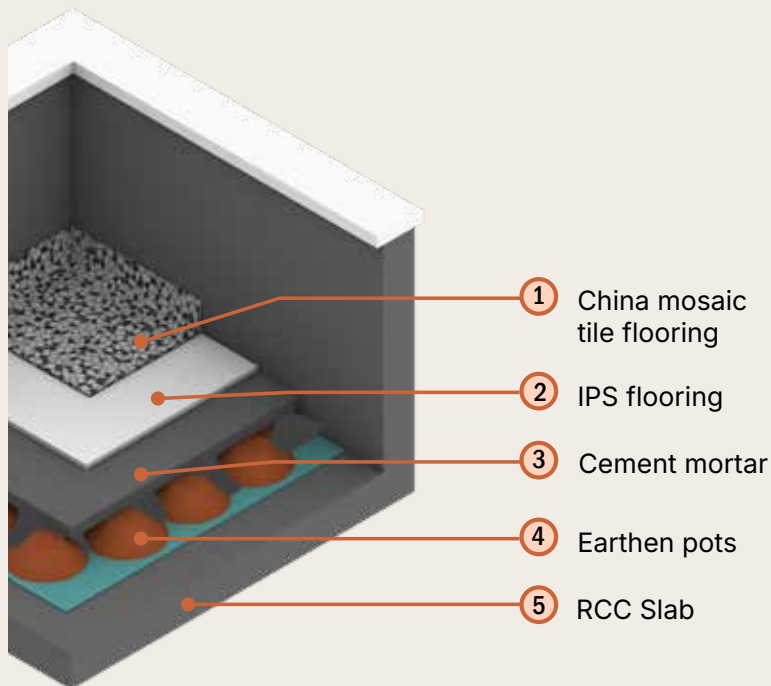


Are you planning to construct your home, and wondering how to build a heat-insulating roof?

C.

EARTHEN POT ROOFING

This method uses easily-available earthen pots in constructing the roof slab, and can be laid by your local mason.



Points to note!

- ✓ *Clean the roof surface well*
- ✓ *Arrange the pots upside down, leaving small gaps between them for cement filling*
- ✓ *Add cement mixture based on correct proportions in the gaps, and even it out with a horizontal bar*
- ✓ *After the cement dries, apply white paint or lime wash to increase heat protection*



Have a house with a sloping roof, and thinking of ways to keep the interiors cool?

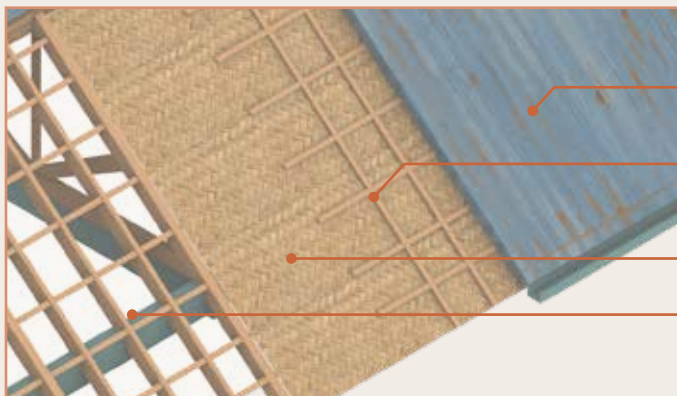
D.

INSULATION ABOVE AND BELOW METAL ROOF

Simply add a layer of bamboo mats (or chick-mats) below the metal sheets to increase roof insulation.



Another option is to add jute bags, bamboo sheets, or dried hay on top of the tin roof to increase insulation.



- ① Roofing sheet
- ② Roof frame
- ③ Bamboo mat
- ④ Secondary frame

Points to note!

- ✓ Construct a metal frame as designed by your local contractor
- ✓ Lay flattened bamboo mats and secure them well with the metal frame using metal wires
- ✓ Add the roofing sheet, and secure it directly to the metal frame using bolts



What ideas does local mason have to keep your house cool?



NOTES



Explore other Durable Homes Toolkits by Lokal Habitat Labs:

1. How do I heatproof my home?
2. How do I waterproof my home?
3. How do I select the right materials?
4. How do I select the right construction team and supervise the work?
5. How to develop the site and construct a strong foundation?
6. How to build strong walls and design windows?
7. How to build a strong roof?
8. How to choose the structural system for your home?
9. How to build a well-serviced home?
10. What are the tips for good RCC construction?
11. How do I maintain my home after construction?
12. How do I design my home?

Disclaimer:

The toolkits offer general guidance based on hot and dry climate conditions in India, and is intended for informational purposes only. It does not replace professional advice. For safe and effective construction, please consult a qualified architect or engineer in your area. We are not liable for any outcomes from the use of this toolkit. If you want us to customise this toolkit for your geographic context, or need more information, feel free to contact us.



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