

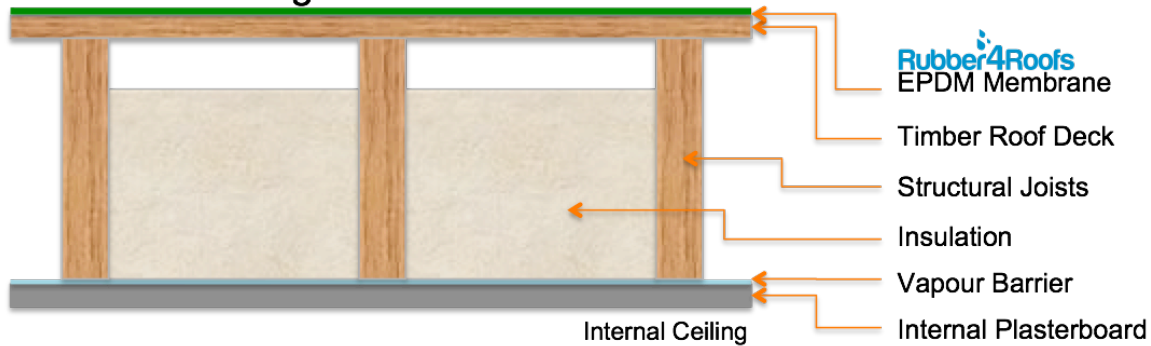
Rubber4Roofs Ltd
Warm Deck Vs Cold Deck

EPDM Cold Deck

The Cold Deck is the most common but also the least thermally efficient design of roof insulation. In the case of a flat roof the roof deck and waterproof membrane are supported on joists, the internal ceiling is attached to the underside of the joists and should have a vapour barrier to stop condensation penetrating the internal decor. Mineral wool insulation is then installed between the rafters leaving a minimum 50mm (2") air gap above the insulation for air flow.

In a cold deck design it is very important to have good air flow that will allow warm moist air to escape. Condensation can lead to rotting deck and ceiling joists and also cause damp insulation and ceilings. Good external ventilation should be installed in the form of soffit vents.

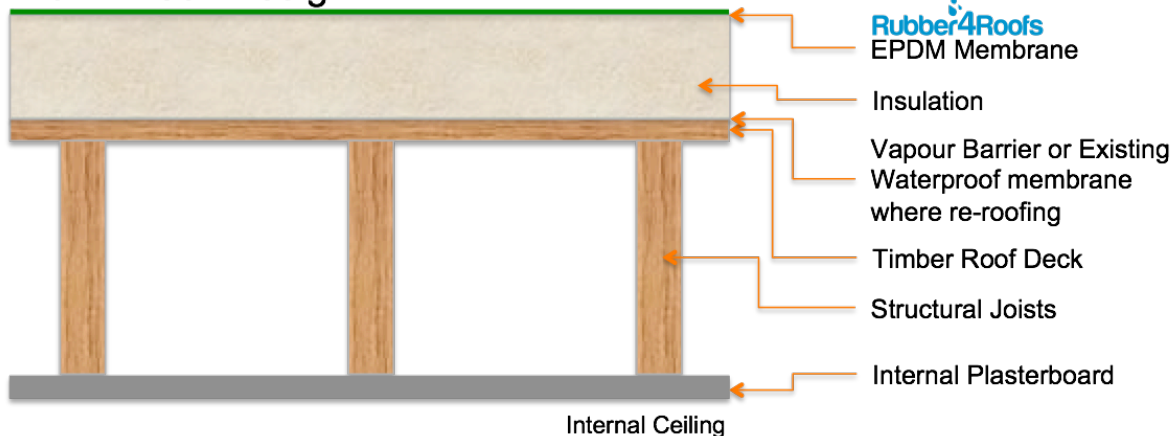
Cold Deck Design



EPDM Warm Deck

The Warm deck roof design is the modern construction method for flat roofs and is preferred wherever this option is possible. Solid (Closed Cell) roof insulation such as Celotex is placed on top of the roof deck rather than in between the rafters. A vapour barrier needs to be installed to reduce condensation in the roof structure. The insulation is normally mechanically fixed in place using the correct screw fixings. Please see our training guide on Installing Insulation. The waterproof membrane can then be bonded directly to the insulation.

Warm Deck Design



Existing membranes such as BUR or felt can be left in situ as the vapour barrier as long as the roof deck is in good order and does not need to be replaced due to water damage. In this scenario the insulation can be glued onto the existing roof covering using a PU Glue. Please call for details.