

Wind:

- Over hang ~~ing~~ in top goes in under the slope
- lower hang. in low goes in the ~~top~~ middle of slope
- Roof increase incoming flow of air.

*New Topic INSULATION Thermal, Material

UNDERLAYMENT FOR SHINGLE ROOFING

- helps the vibration to go through.

*Thermal insulation

- It keep in heat and prevent from cold.
- @ roof require ventilation to dissipate any steam
- must have barrier to help limited transfer.
- Crawl space for ventilation.
- required heat and unheated space.



*Three formulas for Resistance

- $R = F^\circ / \text{btu/hr. st. } \cancel{\text{unit}}$
- $U = 1/R$. \Rightarrow to find total resistance, R is the total thermal resistance. U is the inverse is called thermal transmittance
- $Q = U \times A \times (t_i - t_o) =$ construction assembly equal U overall.
 \Rightarrow to find heat formula consistent itself.

Insulating Material

- Made out off batt insulation consists of flexible thermal insulation of glass or mineral wool.
- Rigid foam insulation preformed non structural board.
- Foam insulation made of plastic, sprayed injected
- Reflective insulation, low emissivity as paper-backed aluminum.



Factors that affect heat loss or gain

- mass of the assembly
- The orientation of the exterior surface of a building
- Latent heat sources and heat gain.



Envelop