



Examples and  
Thoughts?





Roof Covering

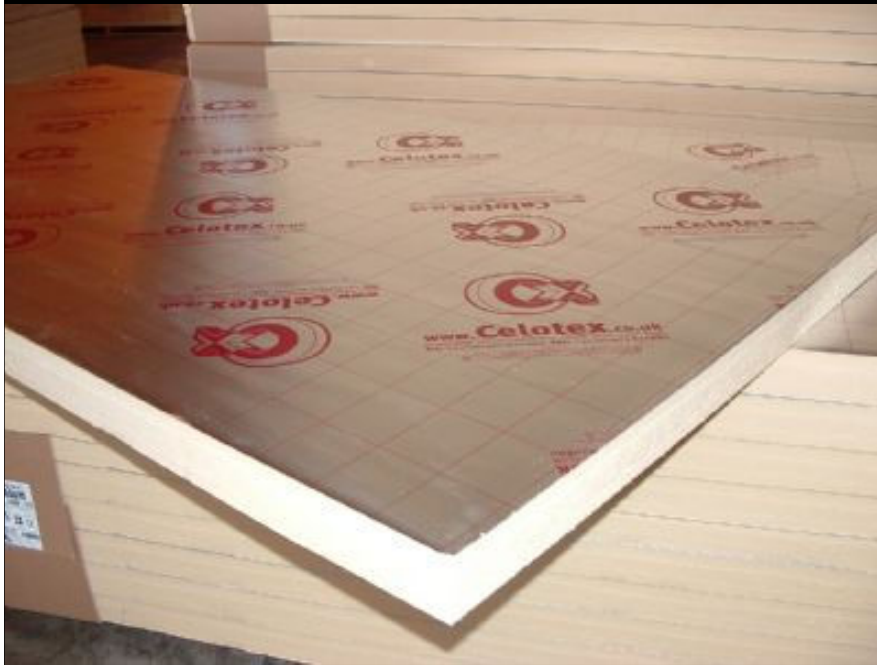


Thermafleece



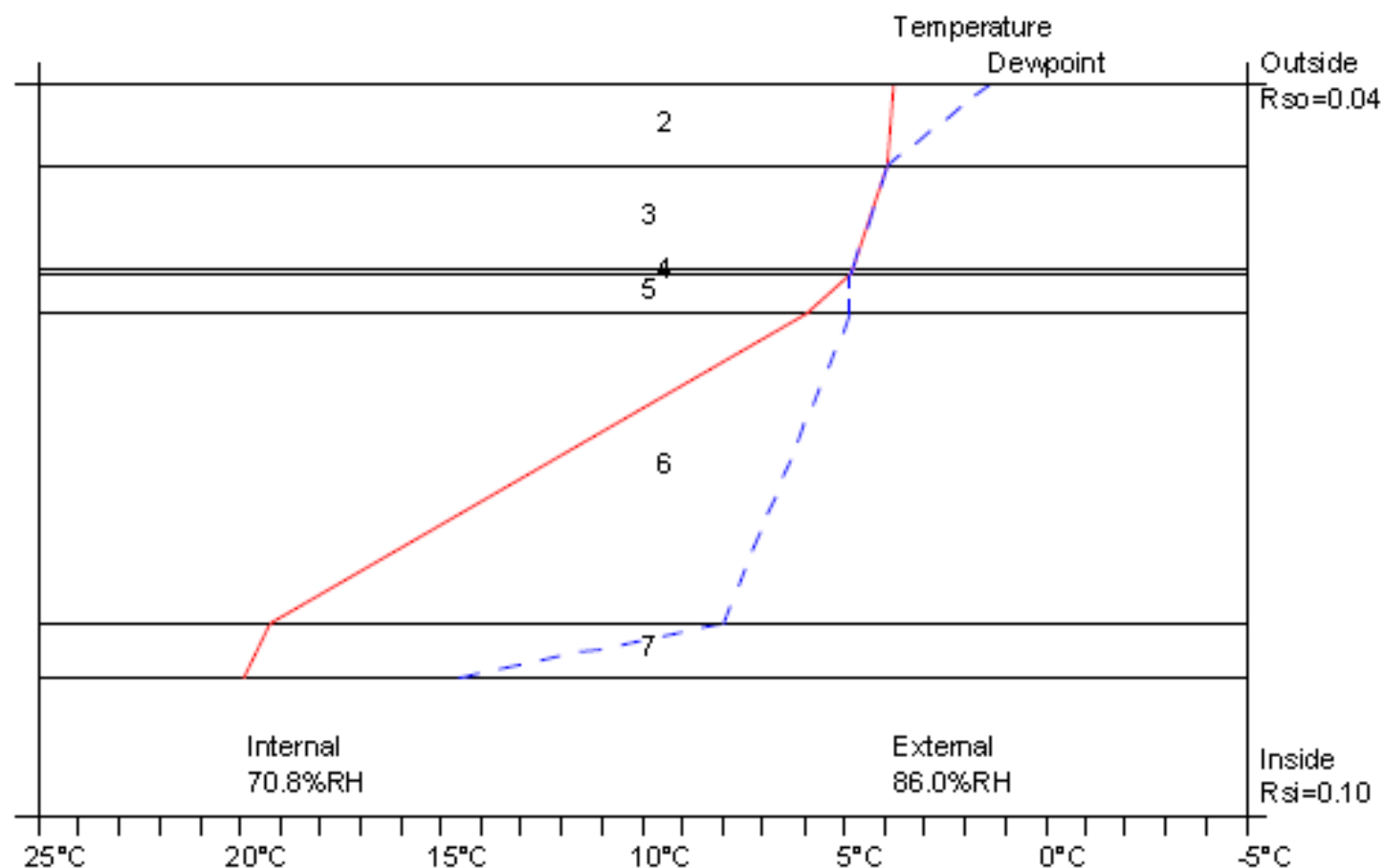
Aerogel

Rigid Board - PIR



Multifoil

ROOFS



#### Condensation Risk Analysis(no account taken of thermal bridges)

4 - Dwellings with high occupancy, sport halls, kitchens, canteens; buildings heated with unflued gas heaters

Jan (worst)	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
20.0C 70.8%	20.0C 69.5%	20.0C 67.1%	20.0C 65.8%	20.0C 65.2%	20.0C 67.6%	20.0C 70.3%	20.0C 71.3%	20.0C 70.8%	20.0C 69.9%	20.0C 69.7%	20.0C 70.6%
3.5C 86.0%	3.8C 82.5%	5.7C 80.0%	8.0C 77.0%	11.3C 77.0%	14.4C 76.0%	16.5C 76.5%	16.1C 78.5%	13.8C 81.5%	10.7C 84.0%	6.4C 85.5%	4.5C 86.5%

	Interface Temp. °C	Dewpoint Temp. °C	Vapour Pressure (kPa)	Saturated V.P. (kPa)	Worst Cond. (g/m <sup>2</sup> )	Peak Buildup (g/m <sup>2</sup> )	Conden- sation
1 Outside surface resistance	3.8	1.4	0.67	0.80			No
2 Clay tiles (BS5250)	3.9	3.9	0.81	0.81	896.8 in Jan	4951 in Apr	Yes
3 Airspace 25mm between slates/tiles underlayer	4.8	4.8	0.86	0.86			No
4 Tyvek Supro	4.8	4.8	0.86	0.86	942.3 in Jan	3674 in Mar	Yes
5 Cavity >=25mm, roof (CIBS)	5.9	4.8	0.86	0.93			No
6 Thermafleece	19.3	8.0	1.07	2.23			No
7 Lath Plaster	19.9	14.6	1.65	2.32			No
8 Inside surface resistance							No

Worst case internal / external conditions for graph : 20.0°C @ 70.8%RH / 3.5°C @ 86.0%RH



- Opportunities
- Defects
- Risks
- Bad Practice







Windows and Doors



# Floors







Walls





Services, Mechanical  
and Electrical





View of wind turbines beyond St Breock Down Monolith, Cornwall  
© English Heritage Photo Library



A house with a pole-mounted turbine  
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