

NBT Retrofit Internal Roof Insulation Solutions

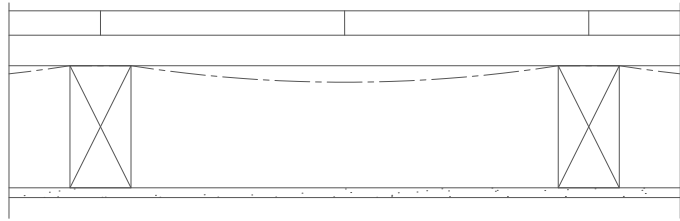
For 75mm or less Rafter Depth

The system complies with the most stringent of standards – from baseline building regulations through to Passivhaus. The system is suitable for most internal finishing options including lime plaster, clay plaster or plaster board finish. All components for the system are available from NBT

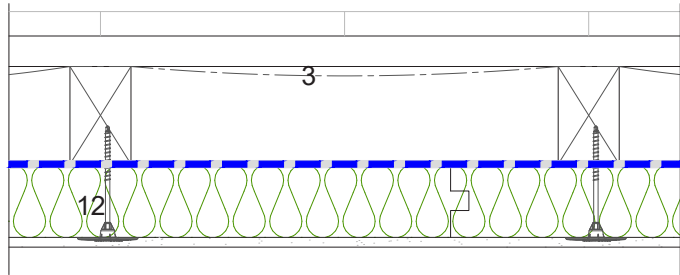
KEY TO COMPONENTS

1. Existing Roof Tile
2. Existing Tile Batten or Sarking ply
3. Existing Bitumen or similar felt
4. Existing rafter to create ventilation gap.
5. NBT ADB breathable membrane. self-sealing overlaps, seal the vertical overlaps with NBT PAVAFIX 60 tape and circular and other penetrations with NBT PAVATAPE FLEX. Use NBT PAVAPRIM primer to adhere the tape to woodfibre or masonry substrate i.e. brick, concrete
6. NBT PAVATHERM-COMBI T&G boards. Available in 40, 60, 80, 100, 120, 140mm and more!
7. 8mm NBT Lime Plaster coat. NBT RK70 6-7mm meshed as base coat and 2mm NBT RK70 textured or NBT RK30 smooth top coat
8. PAVATEX DB 3.5 airtight membrane
9. 25mm New service battens fixed to the existing rafter.
10. Standard Plaster Boards
11. 50mm or more new batten filled with NBT PAVAFLEX insulation slabs
12. NBT STR-H thermally broken washer timber fixings
13. NBT TKR long timber fixings

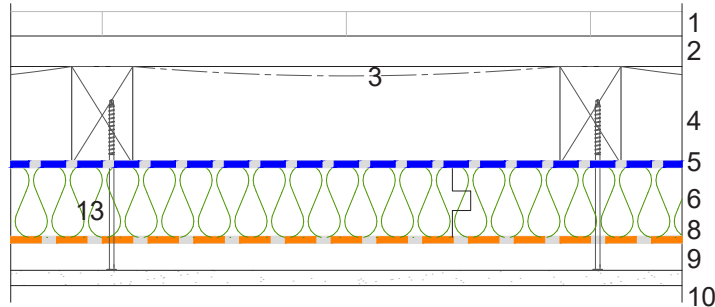
EXISTING ROOF



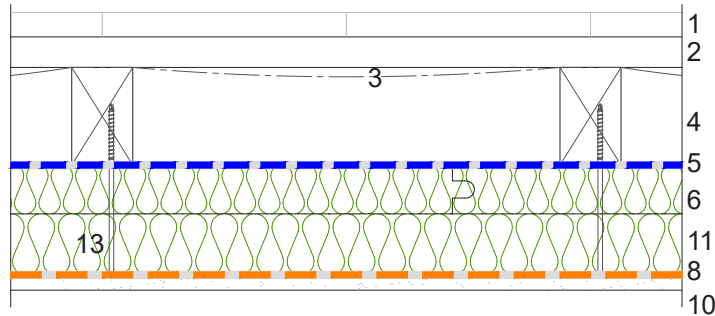
OPTION 1 - Decent airtightness



OPTION 2 - Good airtightness



OPTION 3 - Good airtightness



OPTION 1	Thick- nesses	Thick- nesses	Thick- nesses	Thick- nesses	Thick- nesses	Thick- nesses	Thick- nesses
PAVATHERM-COMBI	40	60	80	100	120	140	160
U-VALUE	0.84	0.60	0.46	0.38	0.32	0.28	0.24

OPTION 2	Thick- nesses	Thick- nesses	Thick- nesses	Thick- nesses	Thick- nesses	Thick- nesses	Thick- nesses
PAVATHERM-COMBI	40	60	80	100	120	140	160
U-VALUE	0.71	0.53	0.42	0.35	0.30	0.26	0.23

OPTION 3	Thick- nesses	Thick- nesses	Thick- nesses	Thick- nesses	Thick- nesses
PAVATHERM-COMBI	40	40	40	40	40
PAVAFLEX	50	80	100	140	150 (100+50)
U-VALUE	0.42	0.33	0.29	0.23	0.22