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## LABC Registered Details: RD364

### Fixing instructions

#### General

- ✓ PhotonFoil does not require personal protective equipment to be used.
- ✓ As with all insulation, installers should follow the Electrical Wiring Regulations when in the presence of electrical wiring.
- ✓ Secondary insulation such as PIR and glass wool should be installed as described in manufacturers' literature.
- ✓ Installation should follow Building Regulations and current good building practice.

#### Air gaps and air leakage

- ✓ Air in a relatively narrow unventilated cavity bounded by low emissivity surfaces is an excellent insulator.
- ✓ Building Regulations require that air leakage through and around insulation is kept to a minimum.
- ✓ PhotonFoil's very low emissivity and air impermeable surfaces allow the optimisation of air gap performance.
- ✓ The optimum thermal performance of PhotonFoil is gained from the use of 20mm air gaps.
- ✓ The flexible nature of PhotonFoil allows it to be easily stapled and sealed to awkward shaped structures.

#### Installation

- ✓ PhotonFoil is normally applied across the rafters/studs but can be applied vertically if the rafter/stud layout makes this more effective.
- ✓ PhotonFoil can be simply held in place by staples of at least 14mm depth.
- ✓ PhotonFoil has 50mm flaps on both edges which allows it to be butted up to itself and taped on the overlap with single sided aluminium foil tape, minimum 50mm wide.
- ✓ PhotonFoil is easily cut with sharp scissors (Kretzer Finny recommended) or sharp knife against a board.
- ✓ Junctions with wall plates, eaves and walls should be carefully taped/stapled to ensure no air leakage and that unventilated air spaces are achieved.
- ✓ Counter battens should be fixed to rafters/studs either with screws or nails and windows perimeters should also be battened. PhotonFoil does not wind up on screws like polyester based products.
- ✓ Plasterboard is then fixed to the inside of the ceiling/wall.
- ✓ Make sure you get those air layers right!