

3.2 Part 2 Products

3.2.1 General Description

- A. The roofing system shall be an inverted warm roof type comprising surface protection as specified, laid on thermal insulation over single layer roofing membrane applied to screeded concrete.
- B. All roofing shall be in accordance with BS 8217.

3.2.2 Materials

- A. Roof Screed
 - i. Roofs shall be screeded with a lightweight cellular concrete having a density of 1040 to 1120kg/m³.
- B. Roofing membrane
 - i. The roofing membrane shall be an impervious laminate comprising PVC sheet and flexible self adhesive rubber/bitumen compound with a total thickness of not less than 1.5mm and designed for single layer application.
 - ii. Primers and sealants shall be suitable for the water proofing membrane and shall be obtained from the same manufacturer as the water proofing membrane.
- C. Thermal insulation
 - i. Thermal insulation shall be rigid boards of extruded closed cell expanded polystyrene, special heavy duty grade, Type A, minimum density of 24kg/m³, of the thickness as shown on the drawings and with interlocking edges.
 - ii. The thermal conductivity, k value, shall not be greater than 0.03Watts/mK.
- D. Surface protection
 - i. The insulation layer shall be protected with precast concrete roofing tiles to BS EN 1339 or as otherwise specified or directed by the Engineer.
 - Tiles shall be cast under pressure and shall be 600 x 600 x 50mm thick.
 - Tiles shall have keyed backs and be cured for a period of not less than two days after the initial set by being totally immersed in a tank of clean water after which they shall be stacked on edge for a period of seven days and be kept moist by spraying with water.
 - The finished surfaces of tiles shall be flat, smooth and plain, free from projections or depressions and edges shall be sharp and true.