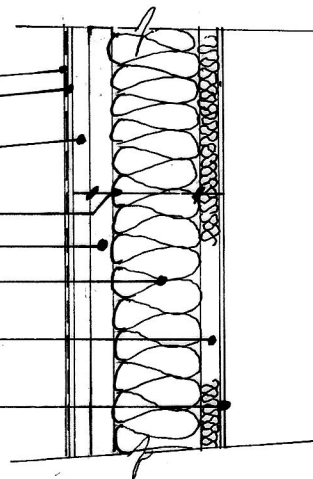


TIMBER FRAME EXTERIOR WALL CONSTRUCTION.

4MM WEATHERED ZINC CLADDING
 5MM SHEAVING FELT
 18MM EXTERNAL QUALITY PLYWOOD
 45 x 145 VERTICAL STUDS AT 400 CENTRES.
 UNVENTILATED CAVITY
 120MM CELOTEX XR4150 INSULATION SLAB BETWEEN STUDS.
 25MM CELOTEX PL4000 (COMPOSITE 12.5MM PLASTERBOARD CELOTEX INSULATION 12.5MM)
 6MM BOARD PLASTER SKIM.



FOR CALCULATION PURPOSES 1M² OF WALL AREA WILL HAVE MIN OF 2 VERTICAL STUDS. TIMBER AREA = 8.75% OF INSULATED AREA.
 CELOTEX AREA = 91.25% OF INSULATED AREA.

'U' VALUE TIMBER FRAME EXTERIOR WALL CONSTRUCTION

EXTERNAL SURFACE RESISTANCE FOR SHELTERED EXPOSURE URBAN LOCATION LOW EMISSIVITY COEFFICIENT

0.11

Resistivity.

0.11

4MM ZINC.

0

0

5MM SHEAVING FELT 5.3 x 0.005

0.027

TIMBER STUDS

BRIDGING INSULATION 0.145 x 6.93 x 8.75%.

0.088

UNVENTILATED VOID COEFFICIENT LOW EMISSIVITY

0.35.

0.35.

120MM CELOTEX XR4150 INSULATION BETWEEN STUDS.

45.45 x 0.120 x 91.25%.

4.977

25MM CELOTEX PL4000 45.45 x 0.025.

1.136

6MM BOARD PLASTER FINISH 6.25 x 0.006

0.038

INTERNAL SURFACE RESISTANCE COEFFICIENT FOR LOW EMISSIVITY SURFACE

0.304.

0.304

TOTAL RESISTANCE = 7.03

'U' VALUE = $\frac{1}{R}$.

'U' VALUE = $\frac{1}{7.03}$

= 0.142 W/m²°K.

Current Building Regulations require minimum 'U' Value of 0.18 W/m²°K. The construction will be well within the required standard.

'U' VALUE CALCULATION FOR TIMBER FRAME EXTERNAL WALL.

Data Source for resistance values: Celotex published trade Literature. Design Data Publication for common construction materials. CIBS publications.

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NOT TO SCALE
 Scale (CALCULATION SHEET)

2482/1/A4:9

Drg. No.

99a CAMDEN MEWS, CAMDEN, LONDON NW1 9BU.

Contract