

PART L Conservation of Fuel and Power - June 22

Exterior Cavity Wall Options
~~DELETE AS APPROPRIATE~~

Any brands mentioned below, assuming the thermal properties/U Values are at least as good as, any similar product is acceptable

OPTION 1 – FULL FILL MINERAL WOOL WITH AIRCRETE
BLOCKWORK – 150MM CAVITY

- 102.5mm brickwork
- 150mm cavity with;
- 150mm Knauf DriTter 32 insulation (0.032 W/mK)
- 100mm aircrete blockwork (0.15-0.18 W/mK);
- 12.5mm plasterboard on dabs

OPTION 2 – PARTIAL FILL PIR INSULATION WITH LIGHT MEDIUM DENSE
BLOCKWORK – 150MM CAVITY

- 102.5mm brickwork
- 150mm cavity with;
- 100mm Celotex CW4000 insulation (0.022 W/mK)
- 100mm light medium dense blockwork (0.49 W/mK);
- 12.5mm plasterboard on dabs

OPTION 3 – PARTIAL FILL PIR INSULATION WITH AIRCRETE
BLOCKWORK – 135MM CAVITY

- 102.5mm brickwork
- 135mm cavity with;
- 85mm Celotex CW4000 insulation (0.022 W/mK)
- 100mm aircrete blockwork (0.15-0.19 W/mK);
- 12.5mm plasterboard on dabs

OPTION 4 – PARTIAL FILL PIR INSULATION WITH BLOCKWORK – 125MM
CAVITY

- 102.5mm brickwork
- 125mm cavity with;
- 75mm Kingspan Kooltherm K108 Cavity Board insulation (0.018 W/mK)
- 100mm aircrete blockwork (0.15-0.51 W/mK);
- 12.5mm plasterboard on dabs

OPTION 5 – FULL FILL PIR INSULATION WITH AIRCRETE BLOCKWORK –
100MM CAVITY

- 102.5mm brickwork
- 100mm cavity with;
- 100mm Xtartherm CavithTherm (0.021 W/mK) or 90mm Kingspan Kooltherm K106 Cavity Board insulation (0.018 W/mK)
- 100mm aircrete blockwork (0.15 -0.19 W/mK);
- 12.5mm plasterboard on dabs

OPTION 5a – FULL FILL PIR INSULATION WITH AIRCRETE
BLOCKWORK – 100MM CAVITY

- Rendered finish (sand and cement/K-Rend)
- 100mm aircrete blockwork (0.15 -0.19W/mK)
- 100mm cavity with;
- 100mm Xtartherm CavithTherm (0.021 W/mK) or 90mm Kingspan Kooltherm K106 Cavity Board insulation (0.018 W/mK)
- 100mm aircrete blockwork (0.15 -0.19 W/mK);
- 12.5mm plasterboard on dabs

OPTION 6 – PARTIAL FILL PIR INSULATION WITH AIRCRETE/CONCRETE
BLOCKWORK – 150MM CAVITY

- Rendered finish (sand and cement/K-Rend)
- 100mm Concrete Block
- 150mm cavity with;
- 100mm Xtartherm CavithTherm (0.021 W/mK) or 90mm Kingspan Kooltherm K106 Cavity Board insulation (0.018 W/mK)
- 100mm aircrete blockwork (0.15 W/mK);
- 12.5mm plasterboard on dabs

SureCav 50 system in the cavity with a flint exterior skin on aircrete block(where applicable) to meet 0.18W/m2K while maintaining a wall thickness of 300mm

FULL FILL PIR INSULATION WITH AIRCRETE BLOCKWORK – 100MM
CAVITY

- 102.5mm brickwork (aircrete block with flint finish - where specified on the approved plans)
- 100mm cavity with;
- SureCav 50
- 100mm Xtartherm CavithTherm (0.021 W/mK) or 90mm Kingspan Kooltherm K106 Cavity (or similar) Board insulation (0.018 W/mK)
- 100mm aircrete blockwork (0.15 W/mK);
- 12.5mm plasterboard on dabs

OPTIONS TO INCREASE THERMAL PERMFORMANCE where required

Exterior

- batten and clad to block work + 25mm rigid insulation (0.023 W/mK) /TLX Gold breathable membrane 0.15 W/m2K
- 25mm rigid insulation (0.023 W/mK) with a cement board and rendered

Interior

- batten and 25mm rigid insulation (0.023 W/mK)
- insulation backed plater board

Wall & Ceiling Construction

ALL external wall to meet a U-Value of 0.18W/m2k

Exterior Timber framed

from the Exterior.....

Cladding - fibre cement for external walls or equivalent James Hardie fire rated to A2 s1-d0, minimum of B-s3,d2/option finish.

25mm Cross Batten

6mm Promat Supalux/Masterboard, or equivalent (if an exterior/boundary/flank wall)

Breathable membrane

12mm OSB ply

200 x 50mm c24 Timbers @ 400mm centre, noggings at <1100mm

Between the timbers

50mm air gap, with 50mm holes drilled for cross ventilation

150mm rigid insulation (eg Cellotex or EcoTherm)

Timbers to have a 200*50mm c24 head and base plate - fixed to a 250*50 plate bonded at damp, fixed to the brick work to the brick work with 30*5mm glavansied fixings @ 600mm centres.

Breathable membrane

25mm rigid insulaton (eg Cellotex or EcoTherm)

Plastered, plaster board to interior finish (fire resitant board when an exterior wall)

Exterior Masonary

from the Exterior.....

* 102.5mm face brick work (to match or external coverage)

* 25mm Air Gap/Cavity

(OPTION) fill insulation, such as Knauf DriTherm 37non-combustable glass mineral wall slab, fixed to internal skin

PLUS thermal backed insulated plasterboard to the internal skin of celcon block

(OR) 125mm, such as Knauf DriTherm 37non-combustable glass mineral wall slab, fixed to the internal skin.

* 100 Thermalite Hi Strength aircrete Block 7.3N

* Horizontal Damp ProofCourse to be a minimum of 150mm from the floor level.

* Insulated cavity closers for each reveal.

Plastered, plaster board to interior finish

cavity closers at each junction with perpendicular brick work

cavity tray where roof meets wall with code 4 lead flashings

weep holes at 900mm centres

Wall ties to be

sited at 700mm horizontal and max 300mm vertical spacing and within 225mm

of any opening or movement joints

set a minimum of 50mm into each masonry leaf.

galvanized aluminium or Stainless Steel construction

Exterior to Damp Course

from the exterior

* 100 Thermalite Hi Strength aircrete Block 7.3N

* 75mm Knauf Dritherm Cavity Slab 32 insulation

* 100mmThermalite High Strength Aircrete Block 7.3N

* Lean mix cavity fill up to 300mm below floor level

* Provide DPC cavity trays (with stop ends) over lintels and flat roof (where appropriate)

ALL reveals and heads to be fitted with insulated fire rated cavity closers

ALL external walls and replacement thermal elements to meet a U Value of 0.18W/m2K

Minimum U-Values for doors, windows and roof 1.4W/m2K

The U-value for doors 1.4W/m2K, while fire doors can meet the U-value of 1.8W/m2K

Interior Wall

c24 75 x 50 @ 400mm centres

sound insulation to fill

12.5mm plasterboard and 2.5mm plaster to each side

Party Wall

To be a double boarded to provide a minimum 30min fire protection

Wall between Garage and dwelling

Plasterboard to both sides (fire resitant board when an exterior wall)

Door to be FD30

200 x 50mm c24 Timbers @ 400mm centre, noggings at <1100mm

Between the timbers

100mm air gap, with 50mm holes drilled for cross ventilation

100mm rigid insulation

Interior Dry lining to interior mansoary wall

c16 100 x 50 @ 400mm centres, tied to the exterior wall with stainless profiles or similar.

sited at 700mm horizontal and 450mm vertical spacing,

set a minimum of 50mm into each masonry leaf.

galvanized aluminium construction

Ceilings and Wall covering

12.5mm plasterboard and 2.5mm plaster

where addition fire protection is required to meet a rating of

REI30 (between dwellings or new Floors) double boarding or fire plasterboard is required

British Gypsum Fire Board (Pink) to be taped and jointed and sealed with Fire retardent foam/beading

Loft Party Wall

50mm void/air gap

c24 75 x 50 @ 400mm centres

100mm sound insulation to fill

12.5mm plasterboard and 2.5mm plaster

1:500		50
1:200		20
1:100		10
1:50		5



All measurement to be checked on site prior to any commenment

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PROJECT

82 Lovedean Lane PO8 9SS

SHEET

3D Section

CLIENT

Duff

Date

Issue Date

Scale (@ A3)

Drawn by

SW

DRAWING NUMBER

REV

Checked by

SR

BR 2