

PROPERTY DETAILS

Four bedroom, 1.5 storey house, total floor area: 266,85m² (2872 sq. ft)

Land North West of Orchard Cottage, Honey Hill, Wokingham, Berkshire, RG40

U-values FOR EXTERNAL ELEMENTS

GROUND FLOOR

Construction

U—value = 0.15 W/m²K

Cement screed 50mm; $\lambda=1.15$

Hard Foam 50mm; $\lambda=0.021$

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Concrete slab

EXTERNAL WALL STANDARD

External wall construction

(Timber frame)

U—value = 0.12 W/m²K

Plaster board 12mm; $\lambda=0.21$

Polyethylene vapour check 0.20mm; $\lambda=0.33$

OSB board 12mm; $\lambda=0.13$

Timber stud frame 180x50mm

Thermal insulation: 'URSA Glasswool' 180mm; $\lambda=0.035$

OSB board 12mm; $\lambda=0.13$

Polystyrene board 120mm; $\lambda=0.032$

Mineral plaster/Cladding/Slip Brick

ROOF

Main roof construction

Construction

U—value = 0.12 W/m²K

Sloping roof insulated ceiling

Thermal insulation 'URSA Glasswool' 80mm; $\lambda=0.035$ above joists

Timber joists 220x70mm

Thermal insulation 'URSA Glasswool' 220mm; $\lambda=0.035$ between joists

OSB board/chipboard 22mm; $\lambda=0.13$

Polythene vapour check 0.20mm;

Plaster board 12,5mm; $\lambda=0.21$

WINDOWS / DOORS

Windows (Rehau windows)

Glazing type

Low 'E' coating? Hard or soft?

Argon filled

Air Gap

Frame / surround

U=1,00 - 1,40 W/m²K,

triple

Low E - triple glazed insulating units with argon have

Yes

No

UPVC

Doors

Frame / surround

Glazing solar gain factor (g-value)

U=1,2 W/m²K,

UPVC

g=0.50-0.70 or better

AIR PERMEABILITY 'AS DESIGN'

Air Tightness: 2.00 m²/(h.m²)@50PA OR BETTER

THERMAL BRIDGING

Individual accessed PSI with $\psi = 0.06$ W/m²K or better

ELECTRICAL LIGHTING

100% of fixed lighting to be low energy

VENTILATION

Mechanical ventilation

MVHR – Zehnder ComfoAir Q350 system

Electrical efficiency < 1.5 W/l/s

Heat recovery efficiency > 70%