www.xtratherm.ie

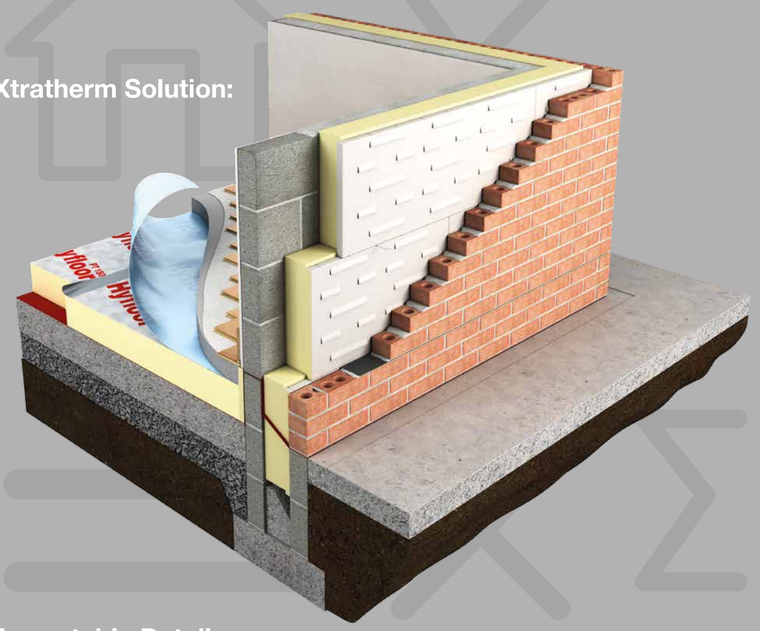
Thermal Bridging

Ground Floor Insulation Above Slab

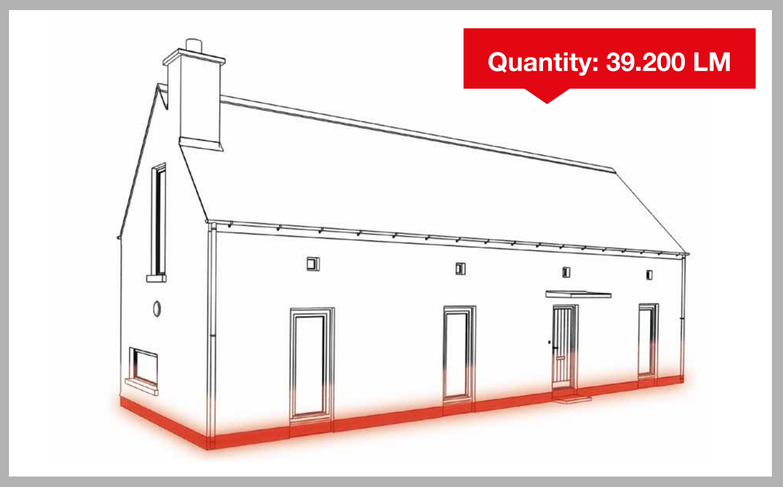
ACD CODE 1.01a

Example House:

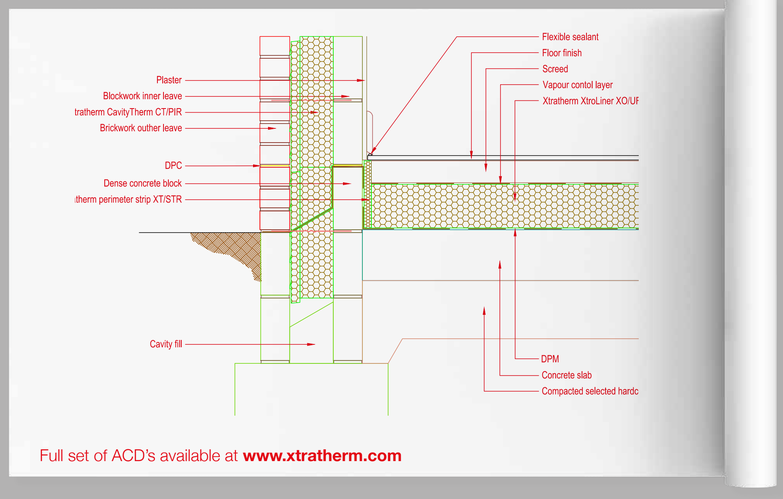
Xtratherm Solution:



ACD Identified:



Acceptable Detail:



Full set of ACD's available at **www.xtratherm.com**

Xtratherm PSI Values Using Acceptable Details*

CavityTherm CT/PIR	125mm	150mm
PSI Value Ψ (W/mk)	**0.165**	**0.152**
Temperature Factor (*f*)	0.843	0.853
U-Value (W/m²k)	0.16	0.13
U-Value Floor (W/m²k)	0.12	

**Using Dense blocks*

Checklist:

Thermal Performance -

- ☐ Ensure CT/PIR is secured firmly against inner leaf of cavity wall.
- ☐ XT/HYF PT 150 floor insulation to tightly abuts XT/STR.
- ☐ Ensure CT/PIR is installed at 225mm below top of XT/UF.
- ☐ Ensure 25mm XT/STR tightly abuts blockwork wall.

Air Barrier - Continuity -

- ☐ Seal between wall and floor air barrier with a flexible sealant or seal gap between skirting board and floor with flexible sealant
- ☐ Seal all penetrations through air barrier using a flexible sealant.

General Notes:

Keep cavities clean of mortar snots and other debris during construction.

Detail applicable: ground bearing floor, raft foundation, in-situ suspended ground floor slab, pre-cast suspended ground floor. XT/UF above slab with timber floor finish.

Where blocks with a maximum Thermal Conductivity of 0.2 W/mk are being used consideration should be given to avoid cracking in plaster due to drying or mortar.

Y Value Calculation Table

Total Envelope Area	356.160				
Junction	**L**		**Ψ**		**L x Ψ**
Lintels	17.840	x	0.001	=	0.02
Sill	15.080	x	0.036	=	0.54
Jamb with return block	48.370	x	0.030	=	1.45
Ground Floor	**39.200**	**x**	**0.165**	**=**	**6.47**
Intermediate Floor within a dwelling	39.200	x	0.001	=	0.04
Sloped (Insulation at eaves)	29.600	x	0.034	=	1.01
Sloped (Insulation at gables)	13.440	x	0.071	=	0.95
Corner (Normal)	19.400	x	0.035	=	0.68
			Total	**=**	11.16
	L x Ψ/ Total Area			**=**	**0.0313**

Xtratherm®
More than insulation

See www.xtratherm.ie for resources and tools to complete a Y-value calculation.

TechnoTeachers Association