



REF: TT 231-2014 - 440-01-2014 - 004927

DATE: 09/11/2014

To: MANSOOR CONCRETE BLOCK INDUSTRY LLC.
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SUBJECT: Thermal transmittance (U) value calculation

Reference is made to your application dated 02/11/2014 regarding the subject above, please note the following:

1- Thermal transmittance (U) value of a wall constructed using "250mm Thick, LECA light weight concrete hollow block is as follows:

a) Wall configuration:

Layer	Thickness [mm]	Thermal conductivity [W/m.K]	Thermal Resistance [m ² .K/W]
External surface	--	--	0.04
Plaster	15	0.72	0.0208
Block*	250	0.152	1.64474
Plaster	15	0.72	0.0208
Internal surface	--	--	0.12
TOTAL	250	--	1.84634

* See Report on Thermal Transmission Properties issued by DCL; Ref TT-231-2014

b) Thermal transmittance (U-value)

Description	U-value [W/(m ² .K)]
Wall Thermal Transmittance (U = 1/R _T)	0.54

Note: These values conforms with the Dubai Municipality requirement of maximum thermal transmittance (U) value for walls of 0.57 W/(m².K)

Regards,

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