



Assessment of the greenTEG gO System in the LafargeHolcim HotBox/ColdBox

Lyon, France, March 2019

AIRIUM
Insulation Redefined

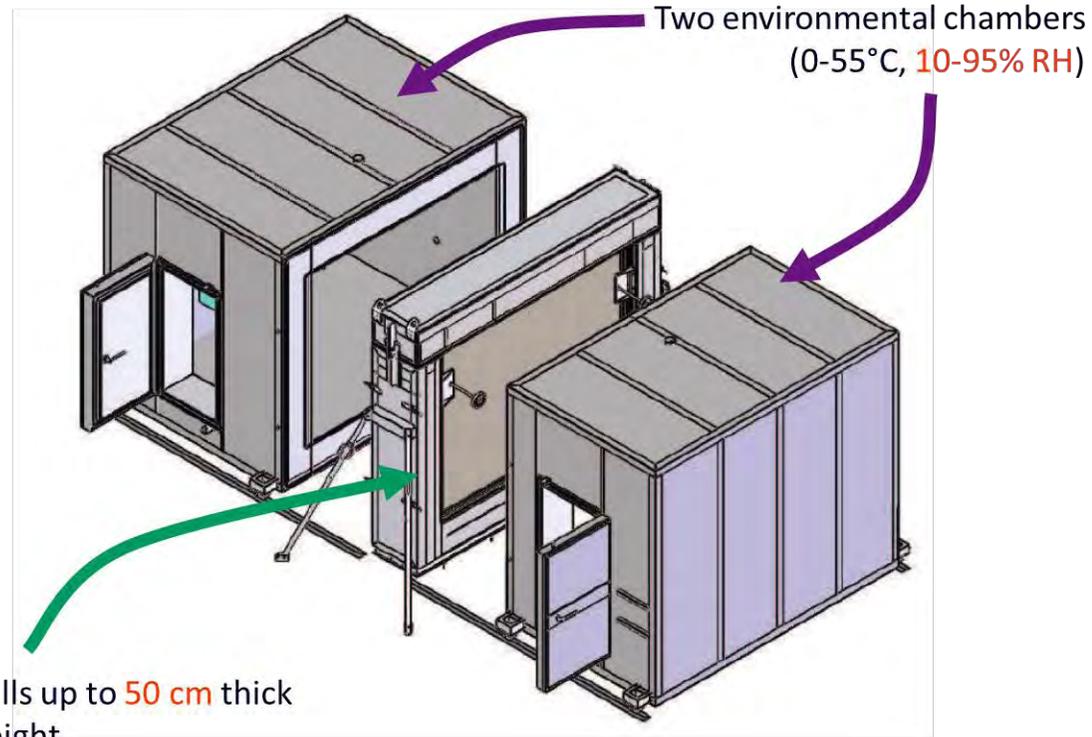

LafargeHolcim

LafargeHolcim HotBox/ColdBox characteristics

An industrial scale tool dedicated to insulating materials development

Possibility to test a full wall element in different conditions to reproduce several building solutions:

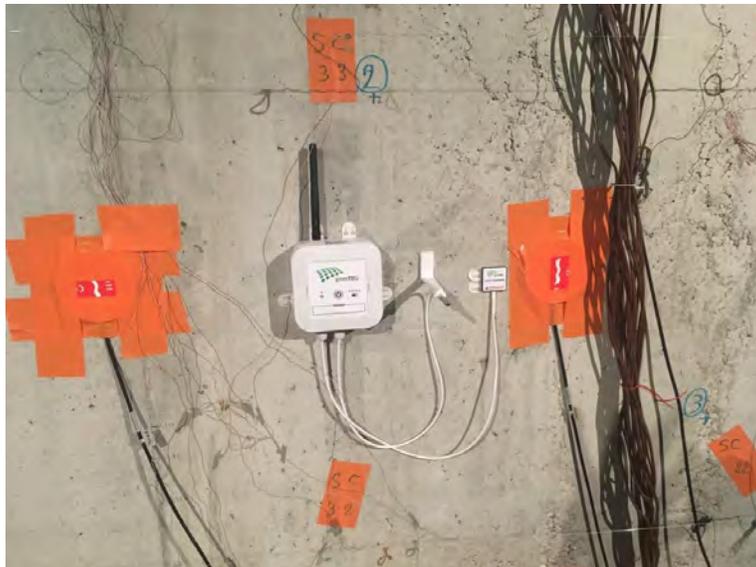
- massive concrete / masonry elements
- internal / integrated / external insulation
- different climates thanks to the ability to reach a large range of T° and hygrometry in both boxes.



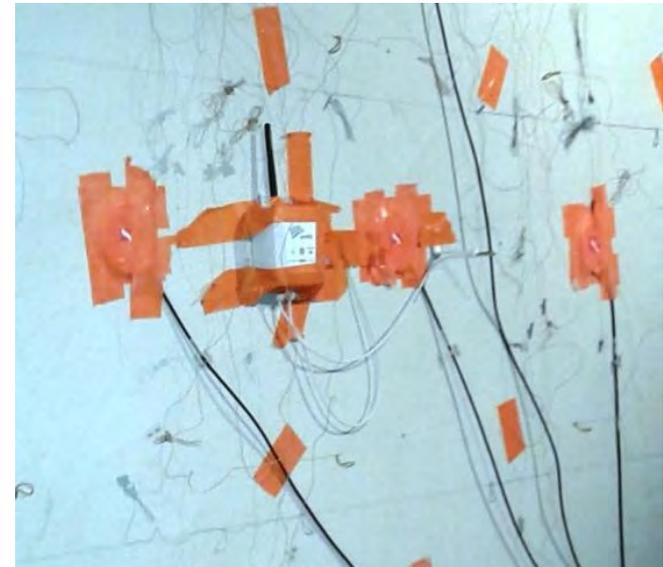
Wall configuration used for test

Test on a massive concrete wall 2,4*3m² with external EPS insulation

Inside node (20°C)



Outside node (0°C)



During the test, the wall is equipped with several wired flux meters + thermometers monitored by the HB/CB itself.

The greenTEG gO System is followed thanks to the cloud connection.

Results

Comparison between theory, HB/CB measurements & gO System

	U-value (W/m ² .K)	R-value (m ² .K/W)
Theory	0.253	3.77
HB/CB	0.256	3.74
gO System	0.267	3.60

Conclusion

The value measured with the greenTEG gO System are quite close to the one measured by our HB/CB.

The gO System underestimate a little bit the insulating properties of the studied element (confirmed on others setup).

Anyway, we estimate this tool as accurate enough to use it on field and think it can be useful for example to have an idea of the insulating behavior of a wall before and after a renovation for example.