Building Science + Bullsh*t Seminar Part seven: Thermal Bridging

with Denise Martin & Peter Raimondo

Definition of terms





Psi-Value (Ψ - Value)

Linear heat loss correction factor

 \succ to enable accurate representation of the total building transmission heat loss



fR_{Si}-Value

Surface temperature factor

 \succ To determine the risk for surface mould or condensation



How is it relevant for H1?





H1 Changes 2022: Part Three: Windows

H1 Changes 2022: Part Four: Floors slabs (VM1)



Floor systems – suspended floors





Floor systems – specialty floors (pod floors)

Pod insulation only





Image: MAXRaft

Wall systems – steel framing

5°C

10°C

15°C

5°C 10°C

15°C





Thermal break





Continuous external insulation

Wall systems – concrete (panels or block)



Cladding fixings through exterior insulation:



Roof systems – cold roof







Steel with external insulation/thermal break

Roof pitch Roof systems - warm roof Timber









< 10º Roof pitch





Window and door systems – aluminium (aluminium, steel)



Window and door systems – Metal with thermal break (aluminium, steel)



Window and door systems – uPVC



Window and door systems – timber



Window and door systems – glass edge spacers





Systems low in thermal bridging	Systems high in thermal bridging	Considerations
Timber framed floors, walls and	Steel and concrete construction	External insulation
		Thermally broken brick tie systems
External insulation systems	Brick construction	Min. thermally broken frames recessed into the centre of the insulation line within the wall
Timber and uPVC windows	Aluminium, or metal window frames, including thermally broken suites	
Fully insulated slab on grade systems	Metal glass edge spacers	Thermal edge spacers

For more details and explanations: https://passivehouse.nz/hpcd-handbook/



More information?







www.oculusitd.co.nz (H1 page, Q&A, Resources, Podcast)



Next Building Science + Bullsh*t – To be confirmed!

