

# Manufacturer Window

# ThermaDura NatureLine 90 passive



Material **Timber**

### Description of baseline window

Double glazed traditional New Zealand wooden window with double IGU-glazing (4/6air/4) and aluminium spacer. Depth of frame: 42 mm.

The frame is not painted in the factory, so for painting at the building site, 15% were added on the net window price.

Installed in the construction layer with reveal insulation. Shaded by fabric screen.

Comfort- as well as hygiene criterion are not achieved.

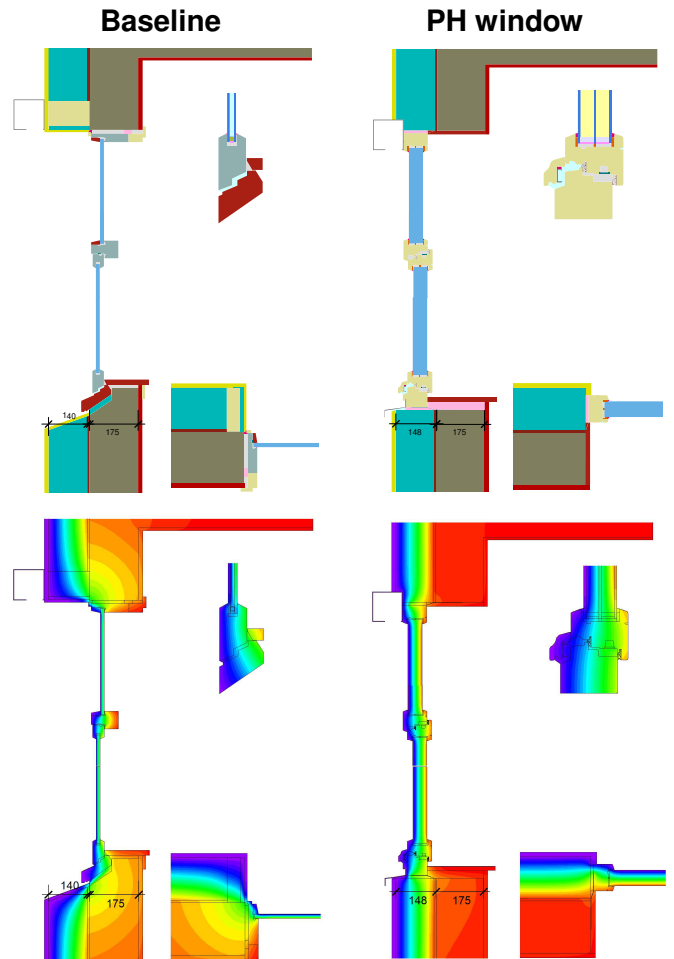
### Description of Passive House window

Timber window frame with high performance triple glazing (4-20-4-20-4). Spacer: Swisspacer Ultimate.

Installed in the center of the insulation layer by steel brackets. Mass equivalency method was used to model the brackets.

Airtightnes by plaster able tapes.

Shades by fabric screen.



New Zealand NZ0013a-Dunedin	Category 1		Category 2	
	Baseline	NatureLine 90 passive	Baseline	NatureLine 90 passive
$U_g$ [W/(m²K)]	2,45	0,52	2,45	0,52
$U_f$ [W/(m²K)]	1,57	1,06	1,36	1,01
$U_w$ [W/(m²K)]	2,39	0,74	2,15	1,03
$U_{w,i}$ [W/(m²K)]	3,36	0,92	2,86	1,16
<b>Glass fraction</b>	77%	70%	56%	71%
<b>g</b>	63%	53%	63%	53%
<b>Shading factor</b>	12%	12%	12%	12%
<b>Investment</b>	2.929 €	2.329 €	5.819 €	4.201 €
<b>Present v. Energy</b>	544 €	30 €	1.079 €	129 €
<b>LCC</b>	3.473 €	2.359 €	6.898 €	4.330 €
<b>LCC Saving</b>		1.114 €		2.567 €
<b>LCC Saving</b>		32%		37%
<b>CO<sub>2</sub></b> [kgCO <sub>2</sub> eq/a]	85	5	168	20
<b>CO<sub>2</sub> Saving</b>		80		148
<b>CO<sub>2</sub> Saving</b>		95%		88%

