

24th november 2010



skjern
vinduer

Når håndværk er vigtigt

Developing energy efficient windows and doors

We decided to approach this challenge in a different way

1. We ignored our production set up
2. Took contact to the most demanding voice in the market
3. Listened to the people using the products – installers and endusers
4. Think out of the box

This resulted in:

Composite (GFRP) as main quality in sash and frame

Frame decorated with wood

Glass glued to the sash – glass becoming the bearing part

Opening topguided and sideguided – special demand to weight

Total width of 45 mm - sash including frame – supporting Eref value

Hard facts on Ecliptica

Profil 44-1

$$U_f = 1,61 \text{ W/m}^2\text{K}$$

$$\Psi_{\text{swiss}} = 0,030 \text{ W/mK}$$

$$U_w = 0,81 \text{ W/m}^2\text{K}$$

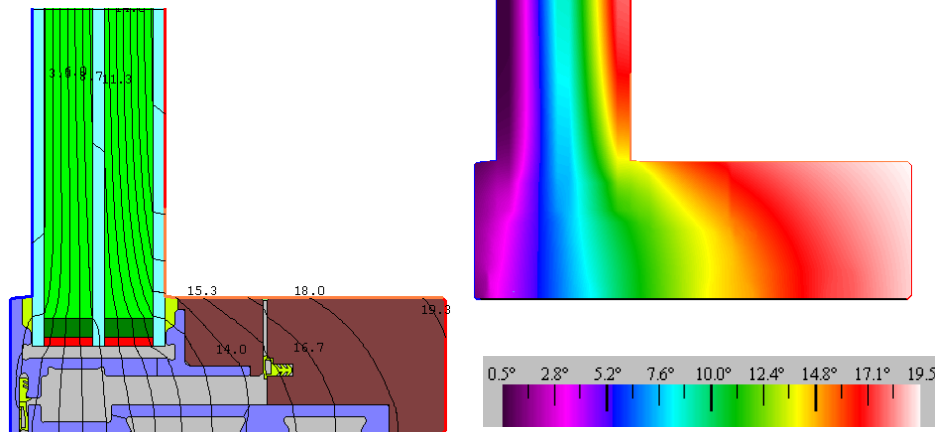
$$E_{\text{ref}} = 12 \text{ kWh/m}^2$$

Materials:









$$\lambda_{\text{wood}} = 0,13 \text{ W/mK}$$

$$\lambda_{\text{EPDM}} = 0,25 \text{ W/mK}$$

$$\lambda_{\text{GFRP}} = 0,32 \text{ W/mK}$$



More hard facts

Energitilskud $E_{ref.}$	Klasser
Ecliptica $E_{ref.} +12$	
$E_{ref.} > 0$	
$-17 < E_{ref.} \leq 0$	
$-33 < E_{ref.} \leq -17$	
$-55 < E_{ref.} \leq -33$	
$-60 < E_{ref.} \leq -55$	
$E_{ref.} \leq -60$	
	

Environmental advantages

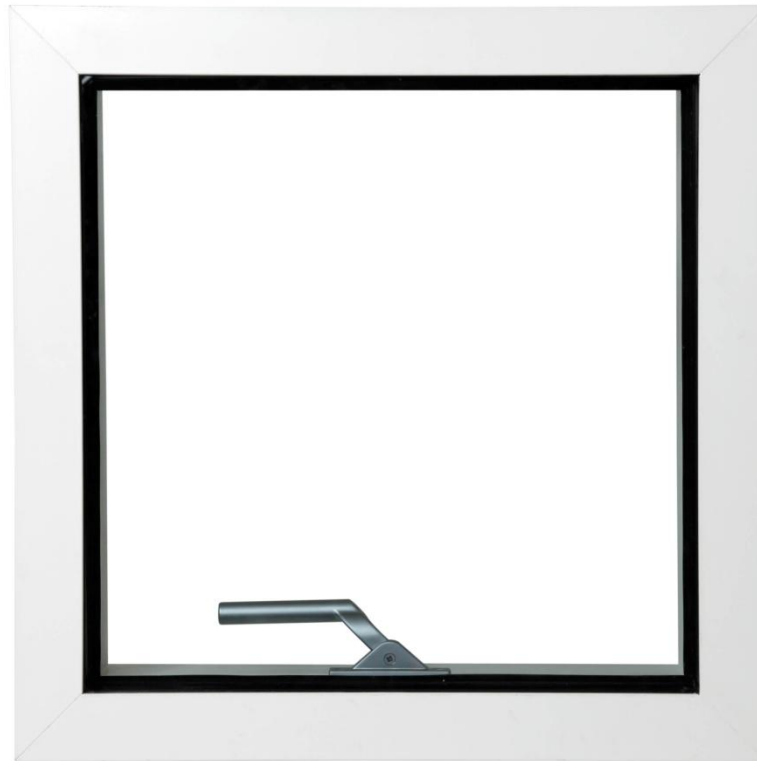
Producing composite (GFRP) only consumes aprx. 50% of energy, when comparing with aluminium

Waste material can be recycled in production of cement

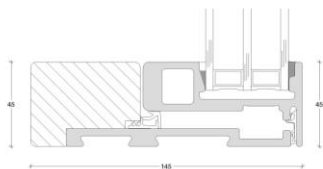
High insulation values can be acheived without using kryptonite

High insulation values

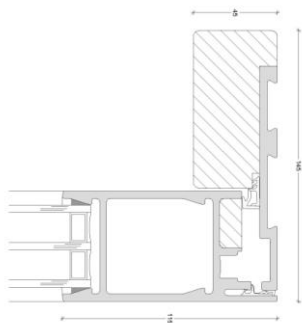
The look



Window – fixed frame / top, sides & bottom
Terrase door / top & sides



Facadedoor – opening outwards / top & side



Just in case !

