



## Rational ALDUS®

- The leading energy window for new build.

### Cross section of Rational ALDUS®



Combining the benefits of a timber frame construction with the durability of an external cladding of aluminium, ALDUS is a popular choice of doors and windows from the Rational collection.

This makes ALDUS particularly suitable for harsh environments – such as coastal locations, or where exhaust fumes from vehicles are prevalent – or in high-rise applications to save on the costs involved with access for maintenance crews.

To preserve the timber against rot and degradation, all timber is coated with water-borne treatments prior to manufacture. Then, the timber can be either painted in a choice of RAL colours, or stained to show off the beauty of the timber – again, with water-borne coatings.

## Used in several certified Passive Houses.



### Passive House

To reach Passive House level the location, building design and energy concept needs to be carefully thought through. Designing a kindergarden highlights demands on daylight and safety - alongside the energy consumption.

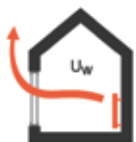
## Energy Performance

The leading energy window for new build.



### Energy balance

$WER_1 = -0,8 \text{ kWh/m}^2$  with triple glazing and argon.  
 $WER_{\text{north}} = -2,7 \text{ kWh/m}^2$  with triple glazing and krypton.  
 $WER_{\text{south}} = 23,9 \text{ kWh/m}^2$  with triple glazing and krypton.



### Uw value

$U_{w1} = 1,01 \text{ W/m}^2\text{K}$  with triple glazing and argon.  
 $U_{w_{\text{north}}} = 0,79 \text{ W/m}^2\text{K}$  with triple glazing and krypton.  
 $U_{w_{\text{south}}} = 0,86 \text{ W/m}^2\text{K}$  with triple glazing and krypton.



Green commitment - FSC® certified.  
The mark of responsible forestry.



Rational is part of the Wood Window Alliance.



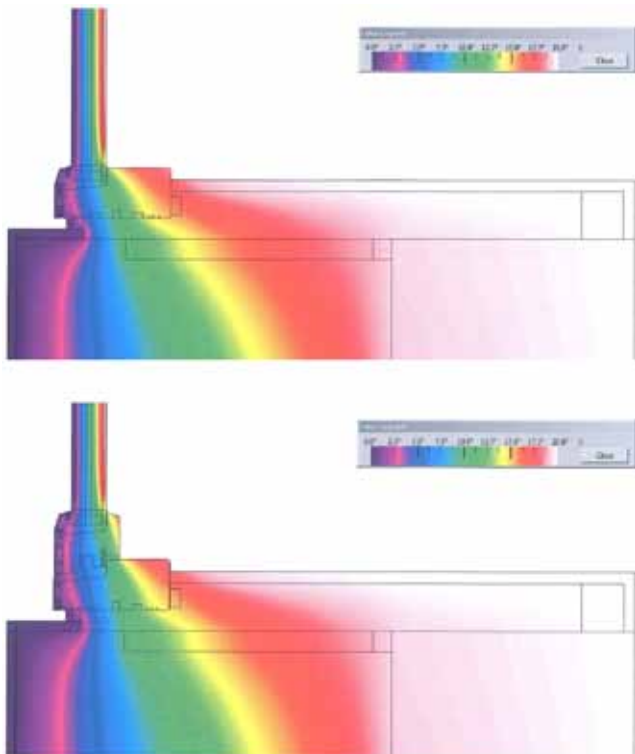
Rational windows and doors can be made to SBD specification.



## Rational ALDUS®

- The leading energy window for new build.

Installation detail used  
in low energy building



### Installation

When all building components is energy optimised to meet for instance Passive House level, the linear heat loss through joints suddenly stands for a notable heat loss in the overall energy calculation - unless they as the rest of the building are careful detailed with energy consumption in mind.

An energy optimised solution can save up to 25% on the heating bill when compared with a regular installation.

Continuous insulation and window placement in the wall opening has a substantial influence on potential heat gain and heat loss.

### Glazing

Double- and triple-glazed sealed units with argon or krypton gas can be supplied. The windows as a full unit can meet Secured by Design - if specified.



### Sustainability

The timber, aluminium and glass all have the potential of being recycled – making ALDUS one of the most environmentally friendly, sustainable products in the market today.



## Suitable for low energy buildings

Project: Wenlock Street

