



National Glass High Performance Range

High Performance Glass Range available in 3 variants:

NRG Lite 1



This cost effective **NRG** efficient clear product will allow lots of natural light into your building.

With its Low E surface coating it will increase thermal insulation and is recommended for areas where moderate solar heat and light management are required.

It is available in monolithic, toughened or laminated options.

NRG Intermediate 1



This **NRG** efficient product is recommended where a higher Solar Heat Gain (SHGC) is required than **NRG** Lite 1.

It has both solar and Low E coatings which will eliminate 45% of solar heat whilst still allowing for 60% visible light depending on the chosen tint.

Only available in a laminated option.

NRG Optimum 1



This **NRG** efficient product has the highest solar control of the range whilst still providing medium visible light transmittance.

The solar and Low E coatings assist with reducing the long term energy cost of your building.

Available in various tinted laminated options.



National Glass High Performance Range

## Performance Specifications

| Description |                             | NRG Lite 1             | NRG Intermediate 1     | NRG Optimum 1          |
|-------------|-----------------------------|------------------------|------------------------|------------------------|
|             | Stay cool in summer         | ★                      | ★★                     | ★★★★                   |
|             | Stay warm in winter         | ★★                     | ★★                     | ★★                     |
|             | Allows light in             | ★★★★                   | ★★                     | ★                      |
|             | Noise reduction             | ★                      | ★                      | ★                      |
|             | Reduce energy cost          | ★★                     | ★★                     | ★★★★                   |
|             | UV protection               | ★★★★                   | ★★★★                   | ★★★★                   |
| Information | Visible Light Transmission  | 83%                    | 60%                    | 43%                    |
|             | U-Value                     | 3.65W/m <sup>2</sup> K | 3.65W/m <sup>2</sup> K | 3.65W/m <sup>2</sup> K |
|             | Solar Heat Gain Coefficient | 0.71                   | 0.55                   | 0.43                   |
|             | Relative Heat Gain          | 535 W/m <sup>2</sup>   | 427 W/m <sup>2</sup>   | 332 W/m <sup>2</sup>   |

NRG Lite 1 - Performance data based on 6.38mm Clear Low

NRG Intermediate 1 - Performance data based on Neutral 60 Low E

NRG Optimum 1 - Performance data based on Neutral HL Low E

### Definitions:

#### VLT

**Visible Light Transmission** is simply the measurable amount of solar visible light (daylight) that travels through a glazing system. A glazing system with a high VLT allows most of the daylight to pass through while a lower VLT window restricts the majority of light from entering a room.

#### U-Value

The **U-value** of a window is a measurement of the rate of heat loss indicating how well your windows are keeping valuable heat in. It is expressed as Watts per square meter Kelvin W/m<sup>2</sup> K. The lower the U-value the better the thermal performance of the glass.

#### SHGC

The **Solar Heat Gain Coefficient** is the fraction of incident solar radiation admitted through a window, both directly transmitted and absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's solar heat gain coefficient, the less solar heat it transmits.

#### RHG

The **Relative Heat Gain** is the amount of heat transferred through glass or a glazing system, taking into account radiative (solar) heat gain and thermal conductive heat transfer.