

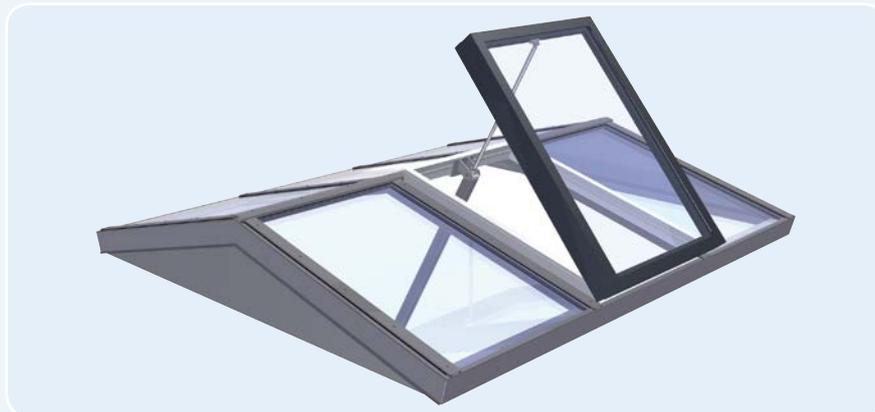


Brakel® Duralite



Sustainable standard industrial glazed rooflight

Duralite is a glazed industrial rooflight, which can be considered the standard rooflight for industrial buildings both now and in the future. This glazed rooflight, which has a gradient of 15°, is the green alternative to plastic rooflights. The Duralite system is favourably priced, easy to fit and can be supplied including glass within ten working days.



Thermally separated saddle roof with a gradient of 15°

In response to market demand for more sustainable products, Brakel developed the entirely thermally separated saddle roof with a gradient of 15°. This glazed roof was specially developed for industrial applications, while it also makes for highly convenient installation. The Duralite glazed rooflight is available in a range of three modular sizes, with a fixed centre to centre measurement, sandwich panel end pieces, and mill finish aluminium. The double glazing is supplied as standard in HR⁺⁺ with two safety interlayers, in clear or matt, and with a U-value of 1.1 or 1.3 W/m²K. Furthermore, hinged windows, approved in accordance with EN 12101-2, can be seamlessly integrated in the system in an aesthetical manner, for smoke & heat extraction and ventilation purposes.

Fall protection

The Duralite glazing system is compliant with fall protection standards (SB1200). This saves both time and money, which would otherwise have to be spent on implementing additional measures.

Green Building Products

As a leading partner in its field, Brakel endeavours to remain a forerunner in the area of corporate social responsibility. Given that with our products, we let in the best that nature has to offer, it is only natural that we also care greatly for the environment. We therefore seek to integrate sustainable solutions in our working methods, products and services, wherever possible.

We have categorised our highly extensive product range according to the levels of sustainability and comfort applicable. The many energy efficient products and systems in the range can be recognised by the butterfly icons that they bear.

We classify our products, ranging from functional to sustainable, as follows:

| | |
|---|---|
|  | functionally applicable in accordance with current qualifications / standards |
|  | compliant with raised sustainability requirements |
|  | compliant with high sustainability requirements |
|  | entirely in keeping with a sustainable solution |



++ Benefits of the Duralite system ++

- Thermally separated saddle roof with a gradient of 15°
- Trouble-free integration of smoke & heat extraction / ventilation windows
- Favourably priced
- Short delivery period
- Simple installation (system is supplied in kit form, including double glazing and instruction manual)

Advantages of glazed as opposed to plastic rooflights

- Longer life expectancy
- Higher insulation value
- Consistent performance, ingress of light, insulation and comfort throughout its life span
- Permanently transparent (no discolouration or scratching)
- Resistant to weather conditions
- No noise nuisance during rain / hail showers
- Fall protection
- Optimum integration Smoke & heat extraction / ventilation
- Low maintenance
- Aesthetically pleasing (added value to property)
- Sustainable

Energy efficient

The Duralite system was designed in such a manner as to achieve thermal separation throughout the range of profile sections. The system vouches for even distribution of the heat flow, devoid of hot spots. This minimises the occurrence of condensation in normal circumstances.

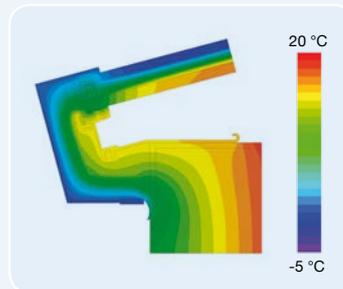


Image shows the heat flow with a temperature variation from -5 °C outdoors to 20 °C indoors.

Improved performance

When it comes to the installation of industrial rooflights in new building and renovation projects, one has the choice of either plastic or glass. In a world in which the demand for sustainable products is growing, it is only logical that the use of glass increasingly applies as standard. Glass lasts twice as long, after all, while it offers excellent resistance to weather conditions (hail and wind), causes no noise nuisance and provides considerably improved and consistent performance in terms of ingress of light, insulation and comfort throughout the useful life of the rooflight. This also lends the property added value.

Total cost of ownership

The Duralite rooflight has a payback period of seven years, while it also yields considerable energy savings in relation to curved synthetic rooflights. The Duralite therefore certainly deserves to be given priority when considering the total costs of construction and operation.



Dimensions

| Dimensions rooflight | Width of upstand | Clear width |
|----------------------|------------------|-------------|
| Width 2160 mm | 80 mm | 2000 mm |
| Width 2660 mm | 80 mm | 2500 mm |
| Width 3160 mm | 80 mm | 3000 mm |

Specifications

- Available in three standard clear widths: 2000 / 2500 / 3000 mm.
- Standard modular size of 900 mm, aluminium sandwich panel end pieces, and mill finish profiles.

| Glass composition | Glass thickness | U-value (W/m²K) |
|-------------------|-----------------|-----------------|
| 6-12-4.4.2 HR+ | 27 mm | 1.3 |
| 6-15-4.4.2 HR** | 30 mm | 1.1 |

Options

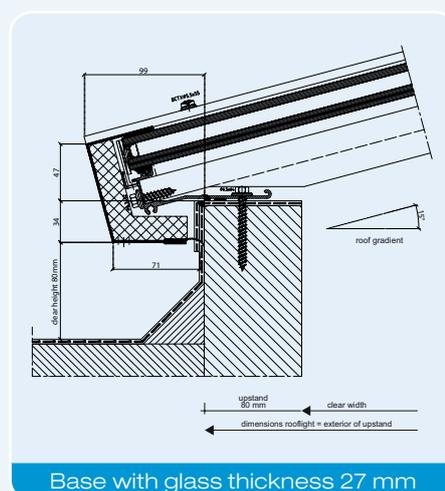
- Integration of EN 12101-2 certified smoke & heat extraction windows, ventilation windows or louver ventilators.
- Surface treatment:
 - RAL colour 1-coat 60µ; optional 2-coat 120µ (Qualicoat);
 - Anodised blank finish 20µ (Qualanod).

Fall protection

The Duralite system is compliant with the SB1200 fall protection standard.

Substructure requirements

- Can be assembled on wooden or steel builders upstand.
- The upstand should be capable of withstanding forces compliant with the EN 1873 classification contained in the table below. Should this prove insufficient, then additional provisions may be fitted in the form of a tie rod.



Thrust forces Duralite 15°

| Clear width rooflight (mm) | Dimensions rooflight (mm) | Snow load (N/m²) | Wind suction (N/m²) | Glass weight (kg/m²) | Standard modular dimensions (mm) | Glass length (mm) | Gradient 15° | |
|----------------------------|---------------------------|------------------|---------------------|----------------------|----------------------------------|-------------------|-------------------------------|---------------|
| | | | | | | | Reactive forces per cross bar | |
| | | | | | | | Horizontal (kN) | Vertical (kN) |
| 2000 | 2160 | 750 | 1500 | 35 | 900 | 1160 | -3,4 / 2,9 | -2,0 / 1,5 |
| 2500 | 2660 | 750 | 1500 | 35 | 900 | 1420 | -4,1 / 3,5 | -2,4 / 1,9 |
| 3000 | 3160 | 750 | 1500 | 35 | 900 | 1680 | -4,9 / 4,2 | -2,9 / 2,2 |

