



# REPORT

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ONTVANGEN  
06-03-2009

## Determination of air permeability and water tightness on a roof light according to EN 1873:2005

(2 appendices)

### Test object

Client:	AG. Plastics N.V.
Type:	Skylux
Type of upstand:	PVC 30-20
Type of cover:	2-layer acrylic dome
Format outside:	1760 x 2960 mm
Format inside:	1595 x 2795 mm
Overall area (based on format inside):	4.46 m <sup>2</sup>
Joint length:	9.0 m

The test object consisted of a fixed roof light with an exterior acrylic dome, see pictures in appendix 1 and drawing in appendix 2. The roof light was supplied by the client.

### Summary of classification

Air permeability according to EN 12152:2002 (based on overall area)	Class A4
Water tightness according to EN 1873:2005 pt 5.5	Pass

### Test procedure

#### Air permeability

The roof light was mounted on an airtight plate and subjected to pressure differences between its two sides. The air leakage through the roof light was first measured using positive pressure on the outside, and after that negative pressure, in steps up to 600 Pa.

The test was carried out in accordance with EN 12153.

#### Water tightness

The roof light was placed horizontally on a rack and subjected to water spray on the outside face for 60 minutes, see figure 2 in appendix 1.

The test was carried out in accordance with EN 1873:2005 pt 6.3.

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**Results**

**Air permeability**

Pa	Positive pressure		Negative pressure	
	m <sup>3</sup> /h total leakage	m <sup>3</sup> /m <sup>2</sup> ,h overall area	m <sup>3</sup> /h total leakage	m <sup>3</sup> /m <sup>2</sup> ,h overall area
50	0.7	0.16	0.7	0.16
150	1.3	0.29	1.5	0.34
300	2.2	0.49	2.3	0.52
450	2.8	0.63	3.5	0.78
600	3.7	0.83	5.0	1.12

Classification (based on overall area):      Class A4

**Water tightness**

No water drops were observed on the internal surface and water had drained away on the outside.

Classification:      Pass

**Conditions of test**

The test results refer only to the tested object.

Date of test:      2009-01-19--23  
 Equipment used:      Test chamber no. 202210, measuring equipment no. 200750, 202215, 202216, 202236  
 Estimated error margin:      Air pressure difference ±2 Pa, water flow ±5 %, air flow ±5 %  
 Ambient temperature:      Air temperature 20 °C, humidity 30 %, atmospheric pressure 980 hPa

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Appendix 1

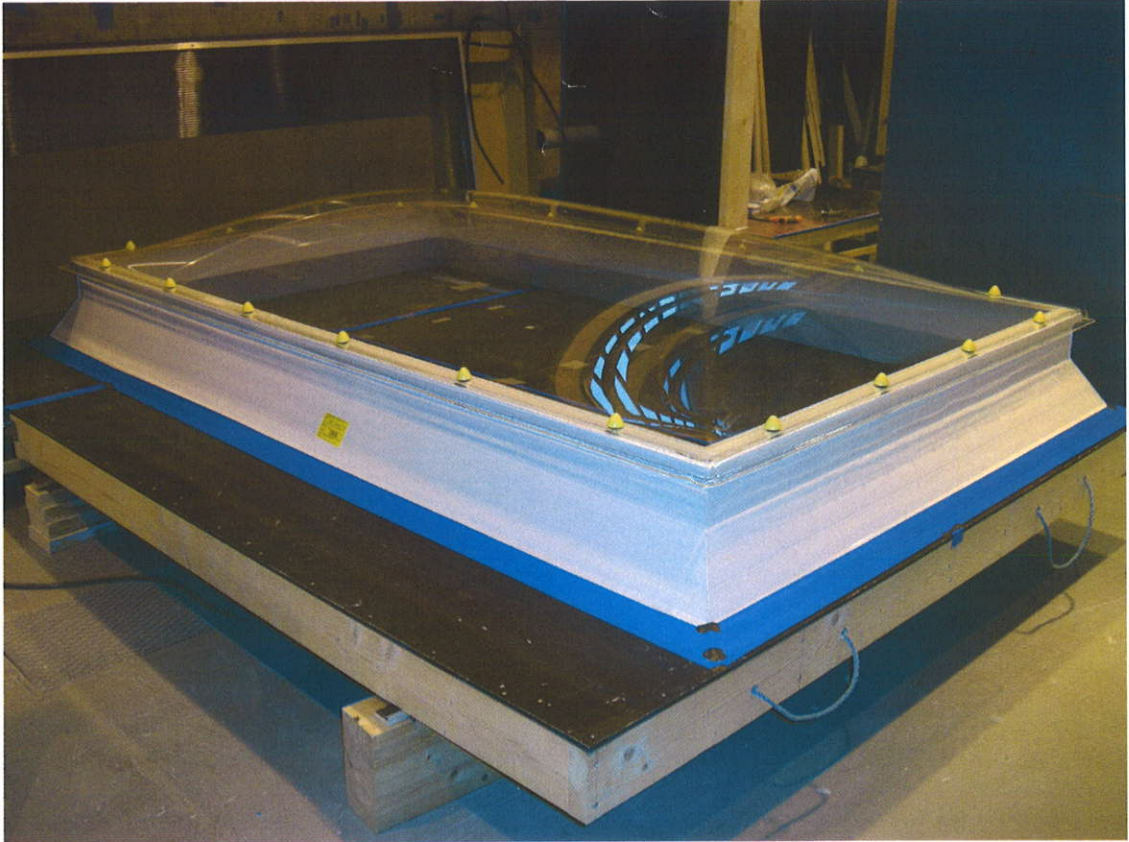


Figure 1 The roof light mounted on an airtight plate.

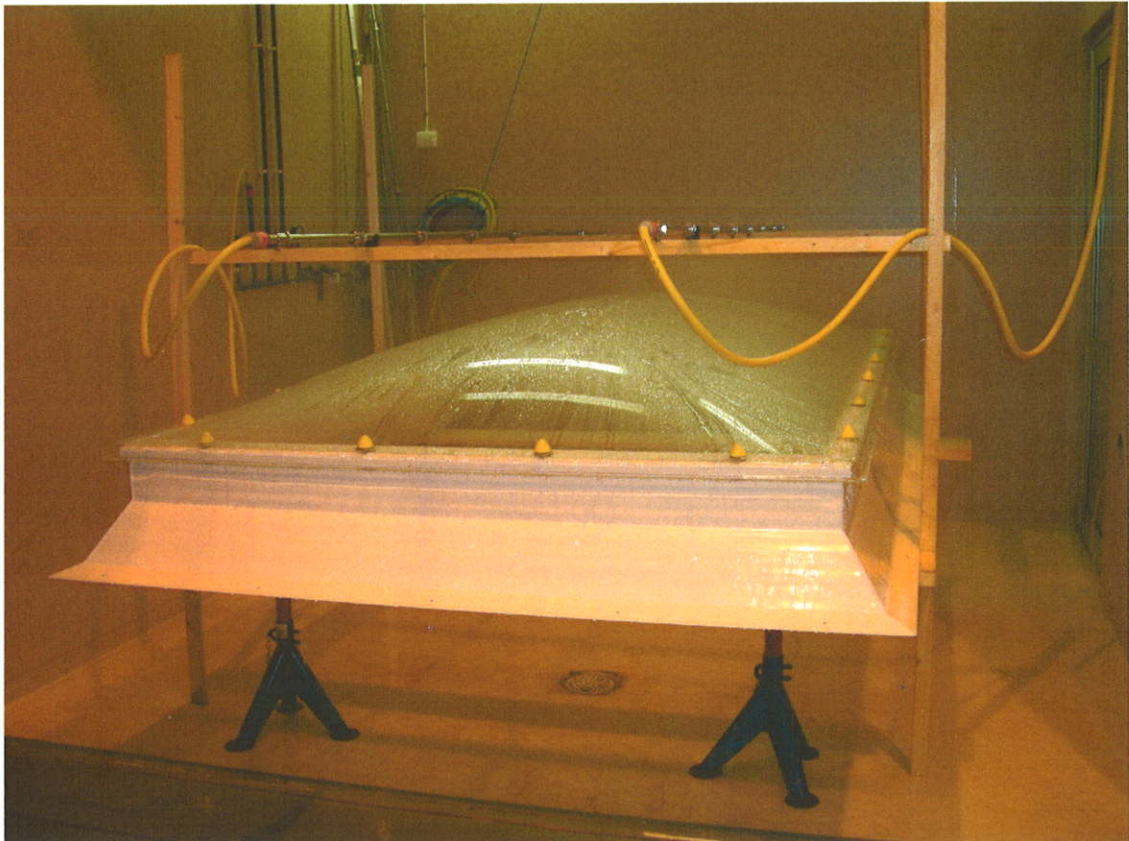


Figure 2 The roof light placed on a rack and subjected to water spray on the outside

Appendix 1

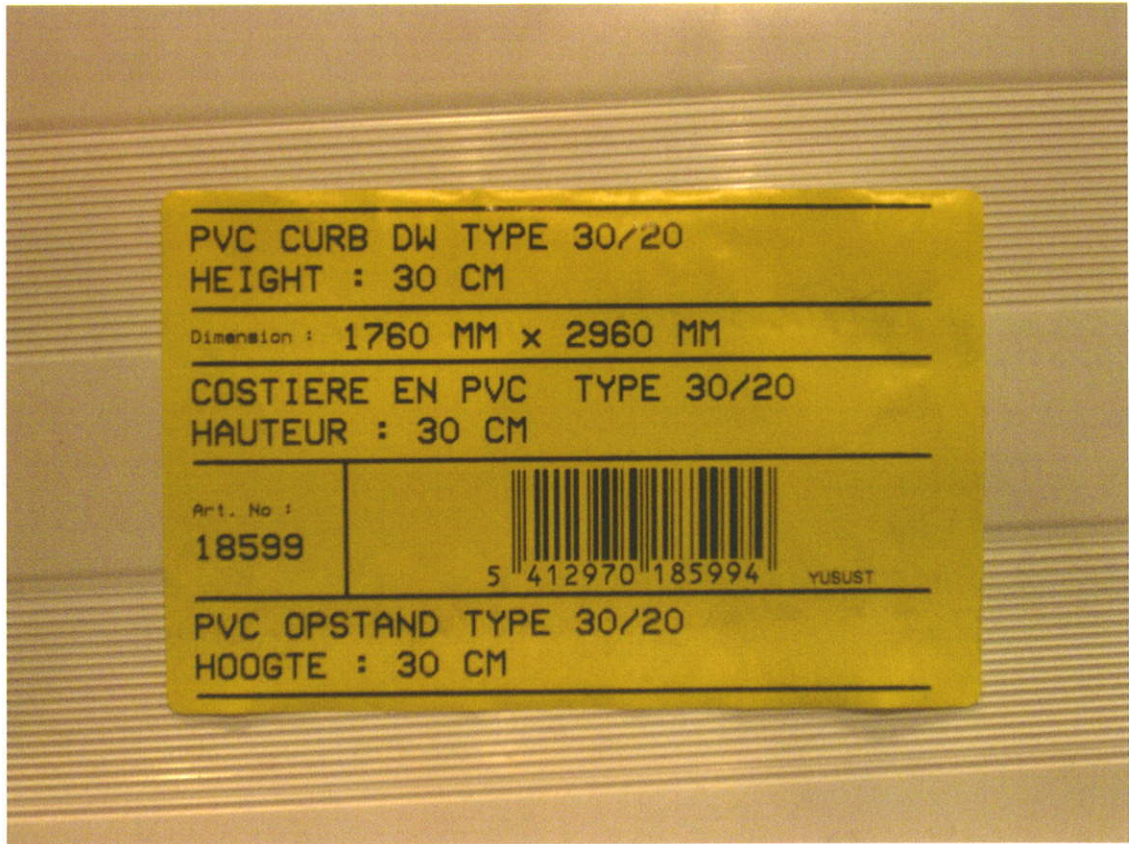


Figure 3 - Label on the roof light





