



# ORNILUX Specification & Thermal Performance

## Available Configurations:

ORNILUX has been tested in cooperation with the American Bird Conservancy and has demonstrated to be an effective solution to mitigate bird collisions with glass on buildings, especially in areas where transparency is the top priority.

As a multi-functional glass, ORNILUX is the only clear glass solution to bird collisions and is available as insulated units with a low-E or solar control coating, offering energy efficiency and bird strike protection, or as laminated glass.

The following configurations have been tested in flight tunnel tests for visibility to birds. A score above 60 (ex: + 60% of all flights towards a clear glass control pane vs. an Ornilux pane) is considered to be statistically significant. Other glass and spacer thicknesses can be produced but please note that configurations that deviate relative to glass thickness and/or spacer width may result in a deviation of the score achieved with tested ORNILUX configurations.

Appearance	Product	Transmission			Reflectance			U-Value		Relative Heat Gain BTU/(h*ft²)	Shading Coefficient	Solar Heat Gain Coefficient	Light to Solar Gain (LSG)	Tunnel Score (% to control)
		Visible Light %	Ultra-violet %	Solar Energy %	Visible Light Out %	Visible Light In %	Solar Energy Out %	Winter Btu/(h ft² F)	Summer Btu/(h ft² F)					

### Insulating Glass with low-E: (ORNILUX Mikado on surface #2 / Arcon low-E on surface #3)

4mm / 16mm Argon / 8.76mm lam														
Neutral	Adv. N33	76	0	47	17	18	32	0.30	0.20	133	65	57	1.30	73
10mm / 12mm Argon / 8.76mm lam														
Neutral	Adv. N33	74	0	44	17	18	25	0.2	0.2	124	61	53	1.40	64
8mm / 16mm Argon / 12.76mm lam														
Neutral	Adv. N33	73	0	42	17	17	27	0.2	0.2	126	62	54	1.40	63
6mm / 10mm Argon / 8.76mm lam														
Neutral	Uno N10	66	0	35	24	25	39	0.2	0.2	105	51	44	1.50	74

### Insulating Glass with solar control: (Arcon solar control on surface #2 / ORNILUX Mikado on surface #3)

6mm / 16mm Argon / 8.76mm lam														
Light Blue	Scandic	50	0	20	18	17	37	0.2	0.2	58	28	24	2.10	77
6mm / 24mm Argon / 8.76mm lam														
Light Blue	Scandic	50	0	20	18	17	37	0.3	0.2	59	28	25	2.00	63
8mm / 16mm Argon / 12.76mm lam														
Light Blue	Scandic	49	0	19	18	17	34	0.2	0.2	58	28	24	2.00	70
6mm / 10mm Argon / 8.76mm lam														
Neutral	Polaris	62	0	27	14	17	33	0.2	0.2	78	37	33	1.90	66

### Triple Insulating Glass with low-E: (Arcon ORNILUX Mikado on surface #2 / Arcon low-E on surfaces # 3 & 5)

4mm / 14mm Argon / 4mm / 14mm / 8.76mm lam														
Neutral	Adv. N33 triple	68	0	37	21	22	37	0.1	0.1	111	55	47	1.40	61

### Triple Insulating Glass with solar control: (Arcon solar control on surface #2 / ORNILUX Mikdao on surface # 3 / Arcon low-E on surface #5)

6mm / 12mm Argon / 12.76mm lam / 12mm Argon / 6mm														
Light Blue	Scandic triple	44	0	17	20	22	38	0.1	0.1	50	24	21	2.10	69
6mm / 14mm Argon / 6mm / 14mm Argon / 8.76mm lam														
Light Blue	Scandic triple	45	0	17	20	22	38	0.1	0.1	51	25	21	2.10	62

### Triple Laminated Glass (ORNILUX Mikado on surfaces #2 & 5)

36mm lam made of 12mm (0.76mm PVB) / 12mm (0.76mm PVB) / 12mm														
Clear	mono 36mm	76	0	45	10	10	7	0.8	0.8	152	71	61	1.2	68
12mm lam made of 4mm (0.76mm PVB) / 4mm (0.76mm PVB) / 4mm														
Clear	mono 12mm	84	0	65	11	11	8	0.9	0.9	180	84	73	1.1	62



## Max Unit Dimensions (for IGU and laminated)

- Float: 6' 6" x 10' 6"  
(78" x 126") (2000 x 3210 mm)
- Tempered: 9' 2" x 19' 8"  
(110" x 236") (2800mm x 6000mm)

## Transport Notes

- Max unit size for standard container: must not exceed 7.2' in one dimension (ex: 10' x 6.5" is acceptable; 10' x 7.5' is not)
- Larger sizes can be shipped with an added premium to the transport price

Arcon\*\* specifies product tolerances for coated semi-finished glass products according to the valid version of EN1096-4. Upon request, arcon will provide a type list (Q-Zert) of externally monitored insulating glass units including declared tolerances. Semi-finished uncoated glass products employed by arcon are used for the uncoated panes in the IGU assembly for calculating performance data.

Slightly deviating performance parameters may occur if semi-finished uncoated glass products from other sources are used. In order to avoid the reproduction of rounding errors, the computation takes place with several right-of-comma positions and the final results are rounded. Therefore, the relation "solar factor = direct energy transmittance + secondary heat transfer" is not always fulfilled.

The calculated U-value is valid for the central part of the glazing only. Effects caused by the edge of the glazing (e. g. spacer, frame) are disregarded.

arcon sunbelt and arcon sunlite must be used on surface #2 (double glazed units) or surface #2 and #4 (triple glazed units), respectively. As a matter of principle, arcon coatings are not approved for use on monolithic panes and in insulating glass units with coating on the outer surfaces.

arcon reserves the right to change product performance characteristics without notice. Mistakes and errors cannot be excluded. Not every combination of substrate and coating can be fabricated although it may be calculated. Please contact our sales organization for feasibility. Recommendations regarding tempered and heat-strengthened glass do not include static load estimations nor do they replace thermal stress analysis. Those assessments must be performed separately.

\*\* Note: arcon is the coating division of ARNOLD Glas.