ORNILUX® design

MORE TRANS-PARENCY PLUS BIRD PROTECTION

BIRD PROTECTION ON SURFACE #1 THANKS TO GLASS FACADES WITH METAL MARKINGS

Every year, several hundred million birds die after colliding with glass surfaces. The reflective and transparent properties of glass make windows and facades dangerous for birds, because they do not recognise them as an obstacle in good time. Worldwide, bird strike is a major factor contributing to the decline in the bird population, second only to the destruction of habitats.

In ORNILUX® design, arcon has developed a solution that can reliably and significantly reduce bird strike. At the same time, the metal coating in ORNILUX® design allows a modern look for facades. Due to the maximum contrast in both reflection and transmission, the birds notice the glass pane in good time and fly around it. For the first time it has been possible to apply this kind of coating to surface #1 (outward-facing surface of outside pane).

The suitability of ORNILUX® design bird protection glass for your facade will depend on the relevant building laws and nature conservation requirements. At an early stage in the design you can benefit from the expertise that we have acquired through numerous studies and our experience in implementing various building projects. When realising your bird-friendly construction project we also take account of geographic and architectural aspects as well as vegetation.

YOUR KEY BENEFITS AT A GLANCE

- Effective against bird strike as confirmed in flight tunnel tests
- Attractive and exclusive design of your glass facade
- Integration of other functions like heat insulation and sun protection on surface #2
- Maximum contrast in both reflection and transmission
- No strength-impairing properties compared with screen printed glass

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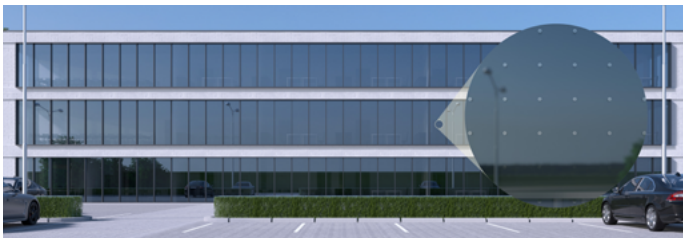
WHAT WE CAN DO

- Coating on the outward-facing glass surface (surface #1)
- Due to the design, thermal toughening is not necessary
- Support with design issues
- ORNILUX® design oHT products can be supplied with optional heat treatment, alarm wiring and as laminated safety glass
- Can be combined with thermal insulation and solar control coatings
- Stock size 3.21 x 6.0 m and up to 12.0 m on request
- Maximum glass thickness 12 mm



For ORNILUX® design a new coating process is being used for the first time that complements the screen printing process previously used. Due to the visible markings birds perceive the glass as an obstacle. ORNILUX® design is available in the variants dart 9-90 and lines 5-95.

OVERVIEW OF TECHNICAL DETAILS

Glass substrate	Glass thickness (mm)	Visible light area			Solar radiation	g-Value (%)	Colour rendering index R_a	U_g-Value (W/m^2K) (90 % argon)	Thickness (mm)	Weight (kg)
		Transmission (%)	Reflectance (%)		Absorption (%)					
			External	Internal						
ORNILUX® design chrome dart 9-90		ORNILUX® design chrome dart								
Float glass clear	66.2	87	9	9	22	76	98	5.4	13	30
ORNILUX® design chrome dart 9-90		ORNILUX® design chrome dart // 1.1								
Float glass clear	4 16 4	81	12	12	15	64	98	1.1	24	20
ORNILUX® design chrome dart 9-90		ORNILUX® design chrome dart /// 0.6								
Float glass clear	4 14 4*) 14 4	73	15	15	23	55	97	0.6	40	30
ORNILUX® design chrome lines 5-95		ORNILUX® design chrome lines								
Float glass clear	66.2	83	11	10	22	73	98	5.4	13	30
ORNILUX® design chrome lines 5-95		ORNILUX® design chrome lines // 1.1								
Float glass clear	4 16 4	78	14	13	17	62	98	1.1	24	20
ORNILUX® design chrome lines 5-95		ORNILUX® design chrome lines /// 0.6								
Float glass clear	4 14 4*) 14 4	71	17	16	23	53	97	0.6	40	30

*) Middle pane is thermally toughened (toughened safety glass)
Other superstructures and combinations on request. The glass thickness can be varied. Highly reflective coatings should be avoided. The above-mentioned markings were successfully tested in a flight tunnel test as laminated safety glass 66.2 with markings on surface #1. More information about this can be provided on request. We would like to point out that until now no glass product has been able to guarantee a complete avoidance of collisions with glass. The results on site will vary depending on bird population, light conditions, surrounding landscape, product used and building design. Double glazing: additional low-e coating N34 on surface #3; triple glazing: additional low-e coating N34 on surface #3 and 5.

WE'RE HERE TO HELP.

arcon Flachglas-Veredlung GmbH & Co. KG, Industriestrasse 10, 91555 Feuchtwangen, Germany
Tel.: +49 9852 67000, Email: info@arcon-glas.de, www.arcon-glas.de

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