

# Supreme solar control and energy saving



Climaplus® Kinon Marine Ultimate



Climaplus® Kinon Marine (KM) Ultimate is a double-glazed unit featuring a high-performance solar control coating for the full spectrum of marine applications. Not only does it offer excellent energy-saving benefits, but it also offers a very high degree of flexibility.

It can be used for:

- cabin windows
- balcony doors
- windows and doors in public spaces
- sky lounge roofing
- roofing for indoor swimming pools

Climaplus® KM Ultimate is manufactured by depositing a coating of precious metal oxides onto a clear float glass via magnetically enhanced cathodic sputtering in a vacuum. The coated glass can be cut according to our customers' specific requirements, and the edges can be bevelled and tempered. Each pane is tested according to ISO 614 standards.

If a thicker pressure pane is needed, Climaplus® KM Ultimate can be laminated and combined with Stadip® Marine. This offers further benefits, including acoustic insulation, fire resistance, colouring options and adjustable privacy options. And because Stadip® Marine is a weight-saving solution where the integrated glass is always 6mm thick, this facilitates the process of adding the solar control coating without the need for additional lamination.

**Ultra-efficient energy saving**

Climaplus® KM Ultimate's thermal insulation properties prevent excessive temperature increases by reducing solar radiation, helping to maintain a consistent, comfortable ambience without compromising on daylight transmittance. This means it can reduce energy bills by minimising the need for expensive air conditioning (HVAC systems) – by more than 30% for a standard cruise ship cabin.

This makes Climaplus® KM Ultimate the perfect high-performance option for applications that need toughened glass that also comprises effective solar control properties. On the other side of the seasonal spectrum, choosing Climaplus® KM Ultimate will mean less heating loss, keeping the internal environment warm during winter.

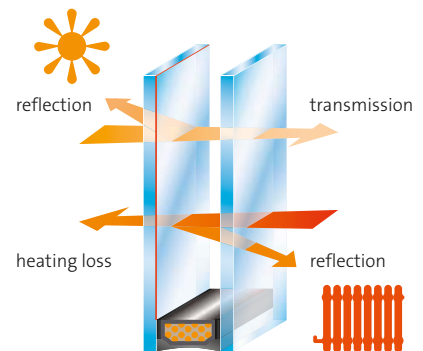
**Benefits at a glance**

- Supreme solar protection
- Excellent energy-saving qualities
- Ultimate thermal insulation: keeps the interior cool in summer and warm in winter
- Minimises the need for HVAC systems
- Can be produced as clear, tempered glass up to a thickness of 10mm
- Can be combined with Stadip® Marine to offer multiple benefits
- No compromise on daylight transmittance

**Technical data**

Climaplus® KM Ultimate*				
Type	20/1	21/1	22/1	23/1
Position of coating	2	2	2	2
Light factors [%]	Transmittance T <sub>L</sub>			
	68	60	50	60
	Outdoor reflectance R <sub>LO</sub>			
	10	15	17	14
	Indoor reflectance R <sub>LI</sub>			
	12	17	20	18
Energy factors EN 410 [%]	41	34	27	28
Thermal transmission [W/m²K]	1.1	1.1	1.0	1.0

\* The data for this table was obtained with 6mm coated clear glass, a 16mm argon-filled gap, 4mm clear glass. Other coatings apart from the four above are available.



Picture credits:

- Norfolk Lines
- BS DELOS, Mike Louagie
- BC Ferries

For marine glass that offers ultimate solar control and energy-saving qualities, visit [www.vetrotech.com/marine](http://www.vetrotech.com/marine)

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