



GLAREGARD®

Anti-Glare Solar Screens For Navigational Windows

We also do Exlite® blackout screens and adhesive solar film



THE QUEEN'S AWARDS
FOR ENTERPRISE
INTERNATIONAL TRADE
2005



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INNOVATION 2005

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Reduces glare & sunlight



Suitable for saline environments



Suitable for cold temperatures



Easy to install



Creates an ideal work environment



Clearer visibility of displays



Clearer visibility & navigation



GLAREGARD®



Anti-Glare Solar Screens For Navigational Windows

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'We will excel, innovate and be remarkable to lead our market sector'

GLAREGARD®

Anti-Glare Solar Screens For Navigational Windows

GLAREGARD® anti-glare solar screens provide a simple, cost effective solution to problems caused by solar glare from navigation bridge windows. GLAREGARD® is a fully retractable solar screen that reduces glare by up to **93%**, rejects up to **83%** of solar energy and almost entirely eliminates UV radiation.

The mariner benefits by having a clear view in all conditions of solar glare. The screens are simple to install and are suitable for bridge windows on all vessel types, as well as control rooms on specialist vessels such as cable ships, naval and auxiliary vessels.

- **REJECTS 93% GLARE, 83% HEAT, 97% + UV RADIATION**
- **SOLUTION TO RADAR / COMPUTER REFLECTION PROBLEMS**
- **LLOYDS REGISTER TYPE APPROVAL**
- **SEVEN (7) YEAR WARRANTY**
- **SIMPLE INSTALLATION**
- **COMPLIES WITH SOLAS II CHAPTER V REG 22**
- **REDUCES INSTRUMENTATION OVERHEATING ALARMS**
- **ALLEVIATES OPERATOR EYE STRAIN**
- **FULLY RETRACTABLE AT NIGHT**
- **COST EFFECTIVE SOLUTION**

Solar Film Engineering Parameter And Colours

Solar Engineering Parameter	Silver	Gold	Grey	Bronze
Solar Energy Rejected – % of the suns energy that is rejected by the glazing system	83	82	60	58
Glare Reduction – % reduction in visible light passing through the glazing system	92	93	90	83
Visible Light Transmission – % of visible light that passes through the glazing system	7	6	9	15
UV Light Transmission – % of UV light that is transmitted by the glazing system	<3	<3	<3	<3

Mechanisms

We have many different mechanisms available in the GLAREGARD® range:

- **Double pulley system – constant tension**
- **Single pulley system – constant tension**
- **Centre pull operation with autoblocking system**
- **Motorised – automated operation**
- **Cable guide support system**



Principle Of Operation

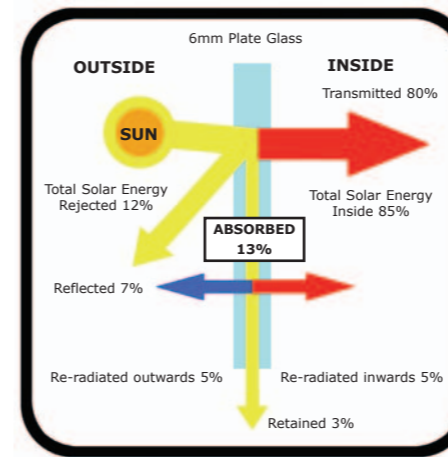


FIG.1 NO GLAREGARD® FITTED

Demonstrates how enclosed spaces heat up as a result of short wave solar energy transmitted through glass. Short wave solar radiation is absorbed by solid objects and radiated as longer wavelength radiation in the form of heat. As glass prevents transmission of this radiation back to the outside, the room space heats up.

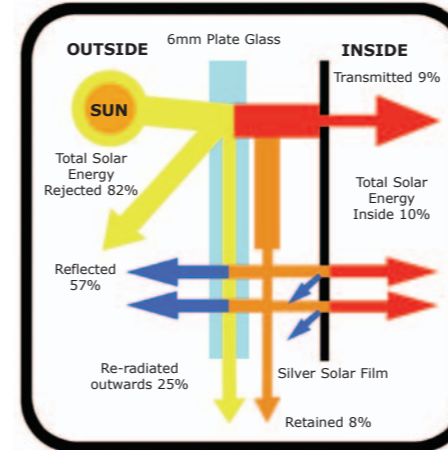


FIG.2 GLAREGARD® FITTED

Demonstrates the rejection of solar energy from the enclosed space due to reflection and absorption at the solar film. The absorbed heat is predominantly radiated back to the outside with minimal back into the enclosed space. The dyed layers in the polyester film control the amount of transmitted visible light providing the 'anti-glare' effect and the observed shading. The inhibitor compound in the film structure almost exclusively absorbs UV light.



martek®
Innovating Beyond Compliance



Film Construction

GLAREGARD® anti-glare, anti-fade heat rejecting film is manufactured by laminating two or three layers of polyester film, one of which is coated with a transparent microscopic layer of aluminium. The base polyester layer incorporates a UV filtering compound to virtually eliminate transmitted UVA and UVB radiation. The third layer can be dyed with a unique additive to reduce the transmittance of visible light.

Silver is the most effective film because of the high energy reflective outer face. Silver film is however unsuitable for Naval vessels, and grey film should be used as an alternative. Grey film provides a blue cast when looking through it.

Specifications

- Cassette** – Material: Aluminium
Colour: Silver
Width: 46mm, Height: 49mm, length 'x'mm
Minimum width 460mm, max. width 2600mm
- Bottom Rail** – Material: Aluminium
Colour: Silver
Width: 10mm, Height: 36mm, length 'x'mm
Min. width 460mm, max. width 2600mm
- Warranty** – 7-year mechanical defects warranty