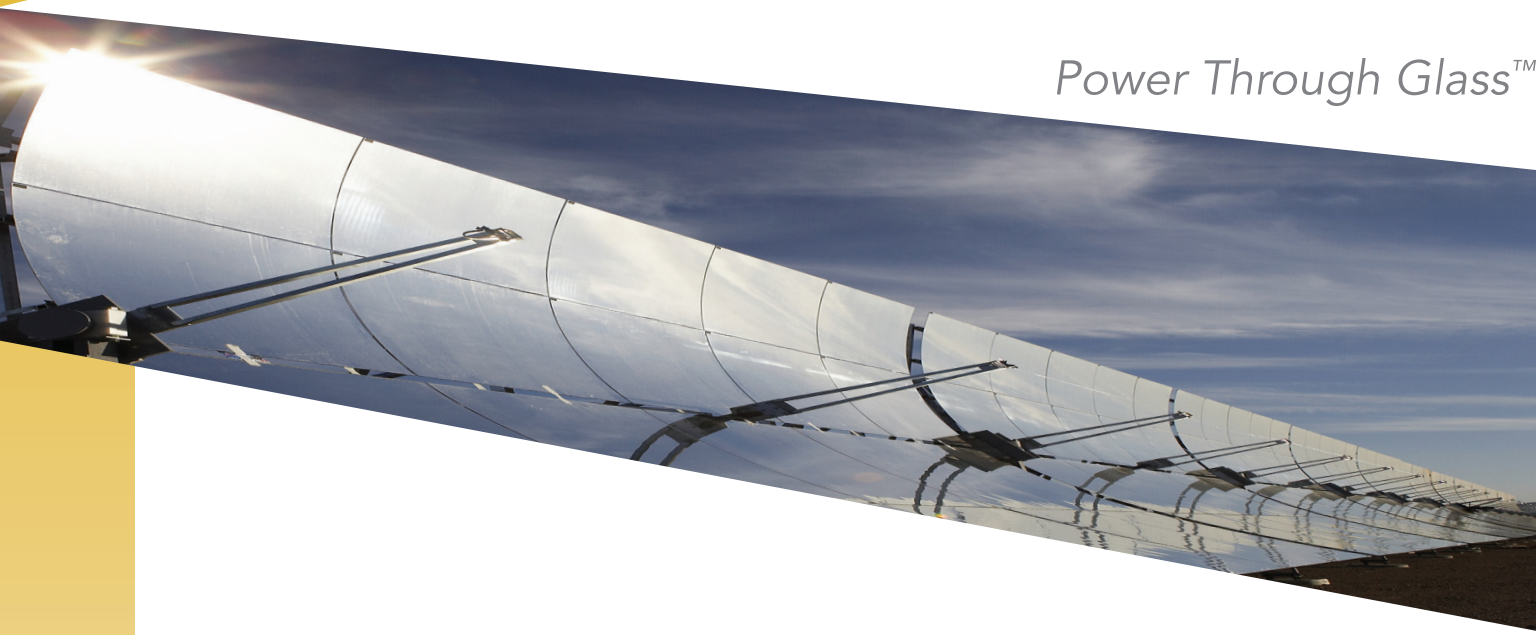
GUARDIAN ECOGUARD® FLOAT

Power Through Glass™



Your Energy Investment Optimized

Low-Iron Float Glass

Standing behind excellence in your solar energy solutions is a company committed to providing you with glass innovation. Guardian has been manufacturing high-quality glass solutions for more than 75 years, with a comprehensive product line that includes glass for solar energy applications. EcoGuard Float is specially designed to maximize solar energy transmission and to enhance performance while being easy to process to meet your requirements. Guardian operates state of the art manufacturing centers around the world so we are always nearby when you need us.

EcoGuard Float glass is available in several transmission ranges and thicknesses from .95 mm to 12 mm to give you the most cost-effective solution for your application. EcoGuard Float can be easily processed to meet your needs, including:

- Cut to size
- Seamed/Ground edges
- Annealed
- Heat strengthened
- Tempered
- Laminated

Applications

EcoGuard Float offers optimal energy and light transmission for:

- Photovoltaic Energy Systems
- Concentrating Solar Power Mirrors
- Concentrating Photovoltaic Systems
- Solar Thermal Applications

EcoGuard Float can also be used for greenhouse applications or other areas where high transmission is required.

Features

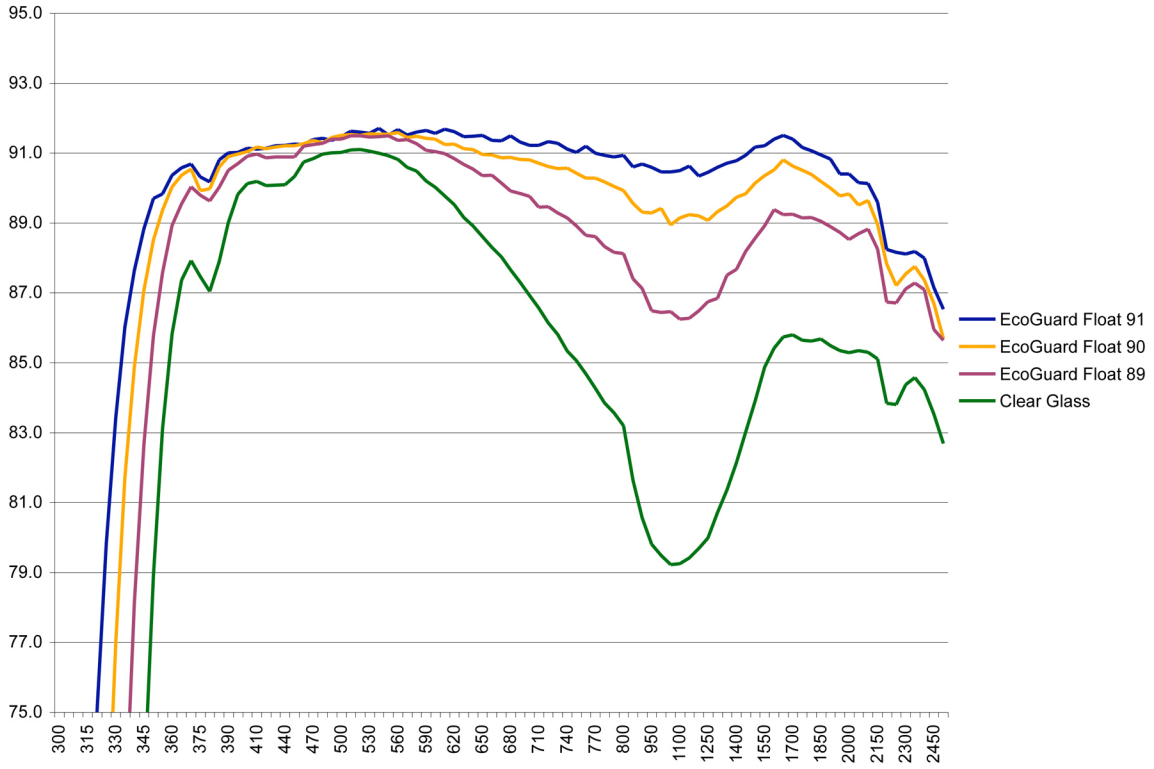
EcoGuard Float is a low-iron float glass designed to maximize solar energy transmission, and is available in a variety of glass thicknesses.

EcoGuard Float maintains its solar transmission throughout its useful life. Guardian does not incorporate oxidizing agents such as CeO_2 that exhibit solarization: reduction in transmission over time due to UV exposure.

EcoGuard® Float

Transmission Values and Common Product Configurations

Product No.	Solar Transmission (Te)	Visible Light Transmission (Tvis)	Description	Strength	Typical Applications
ECO-SF-91-A-.95	91.7%	91.8%	0.95 mm	Annealed	CSP & CPV Mirrors
ECO-SF-91-A-2.0	91.3%	91.7%	2.0 mm	Annealed	
ECO-SF-91-A-3.2	90.8%	91.5%	3.2 mm	Annealed	Photovoltaic modules Crystalline Silicon • Copper indium sulfide (CIS) • Copper indium gallium diselenide (CIGS) • Tandem Junction CSP Mirrors Solar Thermal Water
ECO-SF-91-T-3.2				Tempered	
ECO-SF-91-A-4.0	90.6%	91.2%	4.0 mm	Annealed	
ECO-SF-91-T-4.0				Tempered	
ECO-SF-90-A-3.2	90.2%	91.4%	3.2 mm	Annealed	Photovoltaic modules Tandem Junction amorphous-Silicon • Cadmium telluride (CdTe) Solar Thermal Water
ECO-SF-90-T-3.2				Tempered	
ECO-SF-90-A-4.0	89.8%	91.1%	4.0 mm	Annealed	
ECO-SF-90-T-4.0				Tempered	
ECO-SF-89-A-3.2	88.9%	91.3%	3.2 mm	Annealed	Photovoltaic modules Single Junction amorphous-Silicon • Cadmium telluride (CdTe) Solar Thermal Water
ECO-SF-89-T-3.2				Tempered	
ECO-SF-89-A-4.0	88.1%	91.0%	4.0 mm	Annealed	
ECO-SF-89-T-4.0				Tempered	



Notes:
1. The transmission curves in the above graphic are based on data taken from glass at 3.2 mm thickness.
2. Other thicknesses are available.
3. Te: solar transmission @ AM 1.5 (ISO 9050) over 300–2500 nm.
4. Tvis: visible light transmission for illuminant C over 380–780 nm.

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