

glass made for the sun



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Industrial, quality-oriented solar glass production from one source!

f | solar is a joint venture of the Dutch Scheuten group and the German Interpane Glas Industrie AG: two multinational companies with almost 100 years of experience in the manufacturing of high-quality glass products.

The location in Osterweddingen near Magdeburg now combines this experience for the production of premium solar glass products. Approximately 270 employees produce up to 700 tons of highly transmissive and extremely low-iron solar glass per day.

The innovative production design is consistently focused on the increasing demand by the solar industry. The modern float glass plant is currently the only one of its kind worldwide. The special design of the melting tank and the extremely temperature-resistant materials allow the continuous production of low-iron solar glass. Several high-quality functional coatings are applied under vacuum in one of the world's largest high capacity solar glass coating systems. A new and extremely robust antireflection coating is the key product within the product range.

The glass processing line constitutes the end of the process: Glass cutting, edge cutting, automatic dust-reduced scrap removal, drilling, "on-line" quality inspection, tempering, as well as customised packaging: all of this happens in the form of a fully continuous production process and guarantees consistently high quality all from a single source.

The new standard for solar glass:

- industrial, quality- and quantity-oriented production of solar glass
- state-of-the-art production plants guarantee consistently high quality
- fully integrated factory: vertical range of manufacture from a single source
- optimum technology mix: solar glass and coating





High-end solar glass

Your products deserve the best glass available on the market, because what matters is your product's performance. State-of-the-art production facilities and processing machines guarantee a consistently high glass quality. At f | solar, you can choose from a complete range of solar glass.

f | ecofloat: This particularly energy-efficiently produced float glass is used as back glazing for thin-film photovoltaics. The fully automated production process guarantees reproducible high quality as well as product safety at attractive prices. This glass is also available in the tempered version f | ecofloat T.

f | solarfloat: Thanks to the exceptionally low iron content, this glass is a light and highly transmissive solar glass that is ideal for the front glazing of photovoltaics modules or as cover glazing for solar thermal modules. This glass is also available in the tempered version f | solarfloat T.

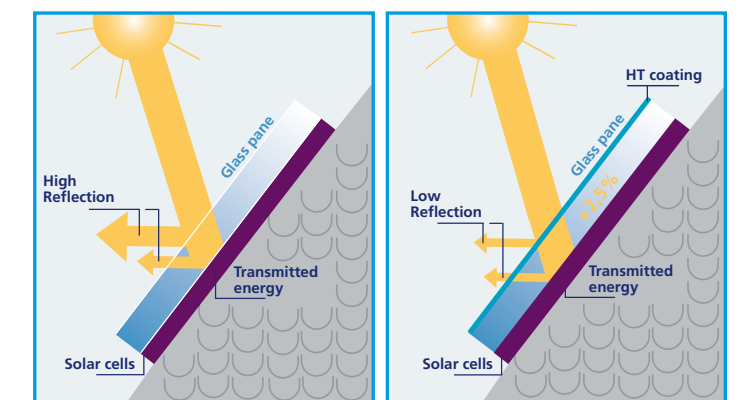
f | solarfloat HT: This is our best selling product with mono broadband antireflective coating. The focus is placed on our industrially manufactured, particularly low-iron, solar glass combined with an effective and durable mono broadband antireflective coating. In one of the largest high capacity glass coating plants, we refine our solar glass under the purest vacuum conditions. f | solarfloat HT achieves unsurpassed values for energy input into the solar module and thereby increases the "solar yield". This has been confirmed by flash tests under standardised test conditions (STC). It pays off: The application of the antireflective coating on just one side of the glass surface increases the share of sunlight used for power generation by more than 2.5 %. This corresponds to an increase of > 5 Wp for a module with a capacity rating of 220 Wp. Moreover, the antireflective coating is made of extremely resistant quartz glass that protects the glass from harmful environmental influences.

Important for your customers: The antireflective coating enables the solar cells to catch considerably more solar energy, even in the case of an unfavourable, flat angle of incidence. The cells start up earlier, work longer, and deliver more power to the power inverter, which in turn can operate more efficiently.

We can also make it thinner: The narrow manufacturing tolerances as well as the comparatively flawless surface of the float and solar float glass guarantee a reproducible high edge quality as well as superior glass strength. The characteristic bending tensile strength of the 3.2 mm thin tempered glass by f | solar by far surpasses the standard requirements for conventional 4.0 mm thick tempered glass.

Logistical advantages due to reduced glass thickness: More than 4,000 kg cargo capacity per truckload, reduced transportation and packaging costs, lowered internal storage costs. In addition, transmission is increased even further!

Boost your energy yield



uncoated glass

HT coated glass



Green products – green factory

The particularly low-iron solar glass from f | solar is used in high-efficiency photovoltaics modules and solar collectors. Renewable energy, without any CO₂ emissions. It is thus a given that active environmental protection is an integral part of the solar glass production process. Industrial manufacturing and environmental protection do not exclude each other. On the contrary!

Safe and environmentally friendly recycling: No use of heavy metals like Arsenic or Antimony.

Short transportation routes: The optimum location guarantees short transportation routes for raw materials and thereby contributes to decreasing CO₂ emissions.

Energy-efficient production: The innovative design of the new furnace sustainably reduces the energy input per ton of glass. The production system itself is setting new ecological standards.

Combined heat and power: A CHP system extracts precious energy from the hot exhaust gases of the melting furnace. Electrical energy plus the simultaneous extraction of steam are used for the heating of buildings and plants.

Exhaust gas purification at its best: A highly efficient flue gas purification plant drastically minimises dust emissions. 100 per cent of the filter dust from the flue gas purification is recycled and reintroduced into the glass melt as a raw material.

Photovoltaics: The gigantic roof area of the production hall is predestined for a 3 MW photovoltaics system, naturally using particularly low-iron solar glass.

Energy management system: The intelligent use of energy is key. A comprehensive energy management system helps to optimally coordinate the several hundred “consumers” of the entire production process. Power, compressed air, or water: everything is being scrutinised in order to save valuable energy.

