

Your products deserve the best glass available –
It is your product performance that counts!

f | solarfloat

1. Products

f solarfloat	Extra low iron solar glass used as front sheets for use in photovoltaic modules and solar collectors. Available in 2,8mm, 3,0mm and 4,0mm. Further thicknesses upon request.
f solarfloat T	Heat strengthened or thermally toughened extra low iron solar glass used as front glass for your thin film PV-modules. Available in 2,8mm, 3,0mm and 4,0mm. Further thicknesses upon request.
f solarfloat HT	Low iron solar glass plus an effective and robust antireflective coating – the top quality product of our solar glass family, heat strengthened or thermally toughened and with up to 2 additional anti reflexive coating layers, which enhance the energy transmission considerably. Available in 2,8mm, 3,0mm and 4,0mm. Further thicknesses upon request.

2. Conformity

Our products (see 1. Products) according to DIN EN 572-2:2004-09 Glass in building - Basic soda lime silicate glass products - Part 2: Float glass.

Thermally toughened products (see 1. Products) according to DIN EN 12150-1:2000-11 Glass in building - Thermally toughened soda lime silicate safety glass - Part 1: Definition and description.

Heat strengthened products (see 1. Products) according to DIN EN 1863-1:2000-03 Glass in building - Heat strengthened soda lime silicate glass - Part 1: Definition and description.

Products with coating (see 1. Products) according DIN EN 1096-1:1999-01 Glass in building - Coated glass - Part 1: Definitions and classification German Version EN 1096-1:1998

3. Photometric and solar radiation characteristics

Energy transmission TE_{pv} in reference to ISO 9050, table 2 AM 1.5 restricted to wave length range 300 to 1200 nm	91,3% ± 0,5% 91,1% ± 0,5%	f solarfloat 3,2mm f solarfloat 4,0mm
Substrate related comparative Hub $TE_{pv,ri}$ at single sided anti reflexive coating, measured after a purification- and tempering process ($TE_{pv\ test} - TE_{pv\ substrate}$) / ($TE_{pv\ substrate}$)	2,5% ± 0,5 %	f solarfloat HT

4. Mechanical Characteristics (Product tolerance according to DIN EN 572-1:2004-09)

Density (at 18°C)	2500 kg/m ³						
Hardness (Knoop)	6 Gpa						
Flexural modulus	7 * 10 ¹⁰						
Poisson ratio	0,2						
Mechanical strength	<table border="0"> <tr> <td>45 x 10⁶ Pa</td> <td>f solarfloat</td> </tr> <tr> <td>70 x 10⁶ Pa</td> <td>f solarfloat (heat strengthened)</td> </tr> <tr> <td>120 x 10⁶ Pa</td> <td>f solarfloat (thermally toughened)</td> </tr> </table>	45 x 10 ⁶ Pa	f solarfloat	70 x 10 ⁶ Pa	f solarfloat (heat strengthened)	120 x 10 ⁶ Pa	f solarfloat (thermally toughened)
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5. Thermal Characteristics (Product tolerance according to DIN EN 572-1:2004-09)

Expansion coefficient (20°C – 300°C)	9 x 10 ⁻⁶ / K
Specific heat	0,72 x 10 ³ J / (kg x K)
Thermal conductivity	1 W / (m x K)
Softening point (°C)	722
Annealing point (°C)	552
Emissivity (rectified)	0,837

6. Chemical composition (Product tolerance according to DIN EN 572-1:2004-09)

Silicon dioxide (SiO ₂)	72,2	[Ma.%]
Sodium oxide (Na ₂ O)	13,3	[Ma.%]
Calcium oxide (CaO)	8,9	[Ma.%]
Magnesium oxide (MgO)	4,4	[Ma.%]
Aluminium oxide (Al ₂ O ₃)	0,5	[Ma.%]
Ferric(III)-oxide (Fe ₂ O ₃)	0,01	[Ma.%]
Potassium oxide (K ₂ O)	0,3	[Ma.%]
Sulfur trioxide (SO ₃)	0,23	[Ma.%]

We declare that our products and supplied raw materials do not contain heavy metals.