




alliaverre
SOLAR GLASS

AV-SUN

EXTRA CLEAR FLOAT GLASS FOR SOLAR APPLICATIONS

AV-SUN is an extra clear float glass especially optimized for solar applications. Combined with the excellent durability of glass, AV-SUN is the product of choice for photovoltaic modules, thermal collectors and solar mirrors.

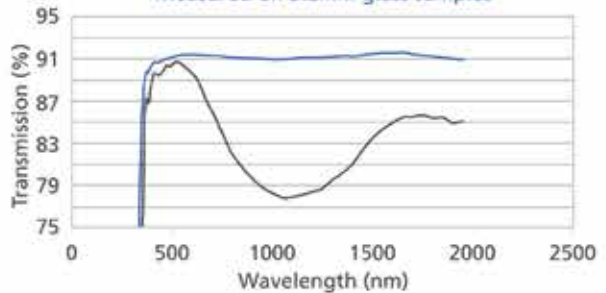
AV-SUN conforms to EN572 and can be delivered fully tempered as per EN12150.

PRODUCT DESCRIPTION

Type	Extra clear float glass
Applications	Cover glass for photovoltaic modules (crystalline, CIGS) Cover glass for thermal collector Front glass for thin film Si and CdTe Substrate for solar mirrors

— Clear Float
— Astralite

Transmission curve
Measured on 3.2mm glass samples



MAIN CHARACTERISTICS *

Light Transmission (%)	1mm - 1/25": 91.7	Illuminant D65 at 2° (acc. +/- 0.2%)
	3.2mm - 1/8": 91.6	Illuminant D65 at 2° (acc. +/- 0.2%)
	4mm - 5/32": 91.5	Illuminant D65 at 2° (acc. +/- 0.2%)
Energy Transmission (%)	1mm - 1/25": from 91.6 to 91.7	ISO9050
	3.2mm - 1/8": from 90.7 to 90.9	ISO9050
	4mm - 5/32": from 90.4 to 90.7	ISO9050
Certification	3.2mm - 1/8"	SPF measurement, labelled U1
	4mm - 5/32"	SPF measurement, labelled U2
Specific weight (kg/m ²)	1mm - 1/25": 2.5	
	3.2mm - 1/8": 8	
	4mm - 5/32": 10	

Processing conditions and dimensions depending on the applications.

Alliaverre can help evaluating these values according to other standards and/or to the specificities of the final application.

MECHANICAL CHARACTERISTICS *

Mechanical strength (MPa)	45	Annealed
	70	Toughiered
	120	Tempered, EN12150
Young modulus (GPa)	70	EN572
Poisson ratio	0.2	EN572
Hardness	Mohs (scratch hardness)	6
	Knoop (indentation hardness)	470
Density (kg/m ³)	2500	Indenter load 500g EN572, at 18°C

THERMAL CHARACTERISTICS *

Hemispherical emissivity (corrected)	0.84	Between -18°C and 66°C
Expansion coefficient (10 ⁻⁶ 1/K)	9	EN572, between 20°C and 300°C
Specific heat (J/kg/K)	720	EN572
Thermal conductivity (W/m/K)	1	EN572
Softening point (°C)	722	
Annealing point (°C)	552	
Strain point (°C)	500	

CHEMICAL COMPOSITION *

Silicon dioxide (SiO ₂ , %)	69 to 74	EN572
Sodium oxide (Na ₂ O, %)	10 to 16	EN572
Calcium oxide (CaO, %)	5 to 14	EN572
Magnesium oxide (MgO, %)	0 to 6	EN572
Aluminium oxide (Al ₂ O ₃ , %)	0 to 3	EN572
Trace elements (FeO, etc., %)	< 5	

Quality control

Safety package

Worldwide logistics



alliaverre
FACTORY



RM101, UNIT 2, B/D7, 129 SOUTH
GUANGZHOU ROAD, JIAOZHOU
QINGDAO, CHINA
Tél: +852 5808 0233
e-mail: asia@alliaverre.com

alliaverre
HEADQUARTER:
INTERNATIONAL SALES

17 avenue du superbe
Orenoque 80440 Bove - France
Tél: (+33) 03 22 47 47 55
Fax: (+33) 03 22 38 01 33
e-mail: contact@alliaverre.com

alliaverre LTD
MIDDLE EAST OFFICE



PO BOX 48904, OFFICE NO-1602,
OWNED BY SHEIKH HAZZAA BIN
ZAYED AL NAHYAN, DUBAI TRADE
CENTER, DUBAI, UNITED ARAB EMIRATES
e-mail: m.e@alliaverre.com