

EMPOWERING



SOLAR EFFICIENCY

COATED GLASS

# MOLY

## MOLYBDENUM COATED GLASS FOR THIN FILM APPLICATION (CIGS)

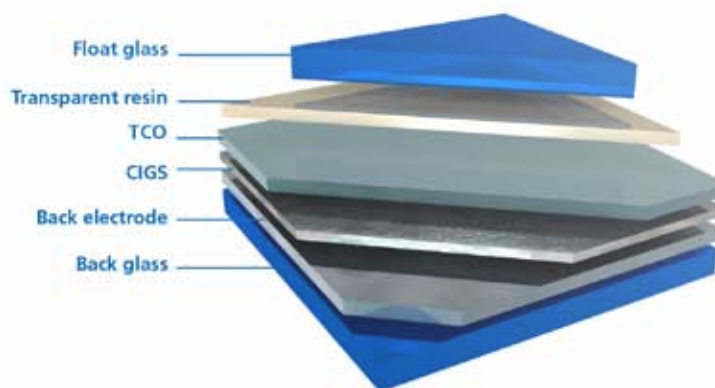
MOLY is a clear float glass, coated with highly-conductive Molybdenum (Mo), used as back contact for CIGS modules. The addition of a sodium barrier layer results in excellent adhesion of the Mo layer during the CIGS manufacturing process and gives an outstanding durability of the module during its entire lifetime. The stack design can be customized to produce state-of-the-art CIGS solar cells.

Combined with the excellent durability of glass, MOLY is the product of choice for thin film photovoltaic modules (CIGS).

MOLY conforms to EN572.

### PRODUCT DESCRIPTION

Type		Molybdenum coated glass
Coating	Barrier layer	Proprietary
	Conductive coating	Mo based
	Deposition	PVD (sputtering)
Applications		Back glass for thin film photovoltaic module (CIGS)



AGC Solar has a long history as a key player in the solar glass business. As part of the world leader in glass production, it benefits from the latest glass technologies to make renewable energy a success. It offers glass solutions for photovoltaic modules, thermal collectors and concentrating solar mirrors. It aims for the highest production standards for increased performance and works through a worldwide network.

## MAIN CHARACTERISTICS \*

Resistivity (Ohms per square)	0.55	4-points method
Specific weight (kg/m <sup>2</sup> )	8	For 3.2mm (1/8") glass
Processing conditions	Annealed	

## MECHANICAL CHARACTERISTICS \*

Mechanical strength (MPa)	45	
Young modulus (GPa)	70	EN572
Poisson ratio	0.2	EN572
Hardness Moh (scratch hardness)	6	EN572
Knoop (indentation hardness)	470	Indenter load 500g
Density (kg/m <sup>3</sup> )	2500	EN572, at 18°C

## THERMAL CHARACTERISTICS \*

Hemispherical emissivity	0.84	Uncoated side	Between -18°C and 66°C
	0.06	Coated side	Between -18°C and 66°C
Expansion coefficient (10 <sup>-6</sup> 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		

## GLASS CHEMICAL COMPOSITION \*

Silicon dioxide (SiO <sub>2</sub> , %)	69 to 74	EN572
Sodium oxide (NaO, %)	12 to 16	EN572
Calcium oxide (CaO, %)	5 to 12	EN572
Magnesium oxide (MgO, %)	0 to 6	EN572
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> , %)	0 to 3	EN572
Trace elements (FeO, etc., %)	<1	

AGC is committed to environmental stewardship through the use of recyclable materials and sustainable process in the manufacturing and distribution of our state-of-the-art, energy efficient flat glass products.

In North America, the product performs to the appropriate ASTM standards.

\*The information contained in this datasheet is intended to assist you in designing with AGC materials. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose. The user is responsible for determining the suitability of AGC materials for each applications.

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