

# GLASS OFFER FOR COMMERCIAL REFRIGERATION

Edition 2023



## EKO<sup>®</sup> PRO

High performance low-e glass  
for commercial refrigeration



**EKO® PRO is the new generation of single Low-E glass, made of a clear float glass on which a thin transparent heat reflective coating has been deposited under a proprietary high end technology, achieving outstanding energy savings in commercial freezers!**

## APPLICATIONS

EKO® PRO is an energy efficient glass specially developed for use as single glazing in cover lids – coating facing inwards – of super- market horizontal freezers and ice cream cabinets.

## PROCESSING

After cutting and edge working, EKO® PRO needs to be tempered in order to reach its final performances. Bending has been validated, exact geometrical possibilities being dependent on the specific process used. The coating must be faced up during all the process. Assembly in IGU is possible, after edge deletion of the coating. Please contact us for technical support and guidance for use.

## BENEFITS

When installed as a single glazing in a cover lid of a horizontal freezer, EKO® PRO offers a lot of advantages, in comparison with the conventional glass products:

- up to 20% reduction of energy consumption of the freezer
- quick payback for the retailer thanks to energy bill savings
- excellent condensation resistance under most climatic classes
- perfect view of the goods through the glass
- safety glass after tempering bendable glass

## RANGE

EKO® PRO is available in jumbo (PLF) size and stock size on 4 mm thick clear glass. Please contact us for more details on sizes and for other thickness.



## PERFORMANCES

PROPERTIES	VALUES	NORMS
Thickness (mm)	4	EN 572
Normal emissivity	0.03	EN 12898
Light Transmittance	≥ 82%	EN 410
Light Reflection	≥ 10%	EN 4100
Visual aspect	Neutral	-



**SAINT-GOBAIN**

SAINT-GOBAIN INNOVATIVE  
MATERIALS POLSKA SP. Z O.O.  
SAINT-GOBAIN GLASS  
IN DĄBROWA GÓRNICZA

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Sustainability is at the heart of our global strategy: contributing responsibly to the development and protection of our planet.

In this regard, our products have an EPD Environmental Product Declaration which is a public, standardized and third-party verified certification.



## PLANITHERM® XN II

Enhanced thermal insulation glass



**PLANITHERM® XN II is a product with excellent transformation properties. It combines an extraordinary chemical resistance, which is maintained over time, with excellent mechanical resistance.**

## APPLICATIONS

The insulating glazing obtained by using PLANITHERM® XN II allows obtaining a good thermal insulation of the glass walls while maintaining a neutral appearance, very close to that of clear glass.

For this reason, it is suitable for any type of application, both in new buildings and in renovations:

- in residential buildings
- in non-residential buildings (offices, commercial,...)
- in the doors of commercial refrigerators

## PROCESSING

- PLANITHERM® XN II must be tempered and installed in insulating glazing units.
- The glass must be edge worked before tempering
- A convection oven is required for tempering

## BENEFITS

PLANITHERM® XN II allows combining the properties of low emissivity annealed glass with the safety of a tempered glass when required.

- Excellent transformability during the insulating glazing manufacturing process.
- Neutral appearance, very similar to that of an insulating glazing without low emission coating
- Allows high levels of light transmission
- Reduced energy consumption for heating
- Saving on energy bills.

## RANGE

The standard production is 4 mm and 6 mm for size: 6.000x3.210 mm on PLANICLEAR® base (clear glass).



## PERFORMANCE

	4/16/*4	4*/14/4/14/*4
Gas	Argon > 90%	Argon > 90%
Thermal transmittance Ug (W/m²K)	1,1	0,6
Light transmission LT (%)	80	72
Solar factor g	0,64	0,52
External reflection LRe (%)	12	16

Data calculated according to EN410-2011 and EN673-2011.  
\*Coating side.

## NORMS

PLANITHERM® XN II has a class C coating according to the European standard UNI EN 1096.1. Tempering must be carried out according to the requirements of UNI EN 12150-1 and 2 and in the case of HST (Heat Soak Test) according to UNI EN 14179-1 and 2.

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## VISION-LITE® II

Anti-reflective glass for display cabinets





## Outstanding transparency and energy performance for your display cabinets!

### DESCRIPTION

VISION-LITE® II is made of a clear float glass on which a thin transparent anti-reflective coating has been deposited on one or both sides, by magnetically enhanced sputtering under vacuum conditions. The final optical properties are reached after glass thermal tempering.

### PROCESSING

After cutting and edge working, both VISION-LITE® II and SEMI VISION-LITE® II PLT UN II need to be tempered in order to reach their declared performances. SEMI VISION-LITE® II PLT UN II must be assembled in IGU, with the low-E coating placed inside the cavity. Please contact us for technical support.

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### APPLICATIONS

VISION-LITE® II anti-reflective glass is ideal for the doors of the refrigerated display cabinets and for commercial freezers, placed in the food stores, convenience stores, supermarkets etc.

### BENEFITS

VISION-LITE® II offers a lot of advantages when installed in a door of refrigerator or freezer:

- extremely clear vision through the glass, making it almost invisible:
  - very high transparency
  - very low light reflectance (around
- 8 times less reflection as for a conventional glass)
- clarity of displayed goods: excellent contrast and color rendering
- neutral residual color
- can be used as single or double glass unit
- safety glass once it has been tempered
- available as an option with one low-E coating on the opposite side of the anti-reflective coating, to provide energy savings and reduced condensation risk, in addition to the extreme transparency
- can be screen-printed
- easy-to-clean surface
- food compatible

### PRODUCT RANGE

VISION-LITE® II is available in jumbo sheet of size 6.000 x 3.210 mm on clear float glass. Please contact us for other sizes and thicknesses, or for one coated side only.

PRODUCT	THICKNESS	COATED SIDES	USE
VISION-LITE® II	Argon > 90%	Anti-reflective coating on sides #1 and #2	Single glass or multiple glazed unit
SEMI VISION-LITE® II PLANITHERM® UN® II	1,1	2 Anti-reflective coatings including 1 Low-E	Multiple glazed unit with low-E coating inside the cavity

### PERFORMANCES

The performances and quality of VISION-LITE® II comply with the requirements of the EN 1096 standard.

PRODUCT	COMPOSITION (mm)	LT%	LR%	Ug (w/m²k)
PLANICLEAR® clear float glass	4	91	8	5,8
VISION-LITE® II	4	97	1	5,8
DGU with 2 x PLANICLEAR®	4/16/4	83	15	2,6
DGU with 2 x VISION-LITE® II	4/16/4	95	3	2,6
DGU with PLANITHERM® II + PLANICLEAR® #3	4/16/4	80	12	1,1
DGU with VISION-LITE® II + SEMI VISION-LITE® II and PLT UN II #3	4/16/4	89	3	1,1
TGU with 2 x PLANITHERM® UN II + PLANICLEAR®	4/14/4/14/4	71	16	0,6
TGU with VISION-LITE® II + 2 x SEMI VISION-LITE® II and 2 x PLT UN II	4/14/4/14/4	82	5	0,6

LT: Light Transmittance ; LR: Light Reflectance. Values after tempering, according to the EN norms, provided that the glass has been tempered in respect with the Saint-Gobain instructions.

**Note:** Note: The residual reflectance of VISION-LITE® II is very low (around 1%). It is however still visible under certain lighting conditions, viewing angles and in certain surrounding environments. The residual reflectance depends on the angle from which it is viewed. Perpendicular to the glass, it is slightly bluish and can vary slightly.

## EKO<sup>®</sup> PURITY

Side walls & sliding lids with transparent edges for horizontal / semi vertical display coolers & freezers



## ECO PURITY

Pure clear view

### DESCRIPTION

Saint Gobain EKO®PURITY is an Insulating Glass Unit with totally clear transparent edges.

### APPLICATIONS

EKO®Purity IGU is designed for the Side Walls and Sliding lids of Horizontal or Semi vertical Display Coolers Freezers

- It can be equipped with dedicated profiles or customized fixation systems in order to fit and easily assembled on any food display device It can be provided in DGU or TGU
- Eko® Pro low emissivity glass is used for sliding lids

### ACCESSORIES

Customizable fixation system included product ready to install. Aluminium profiles, PVC profiles or seals, Steel profiles, Injected parts can be added to EKO® Purity IGU during its production process or on customer site.

### BENEFITS

- EKO®PURITY con tribute to maximize the merchandising performances of the display coolers freezers due to its frameless design with pure clear transparent vertical sides and antireflective or extra clear glass
- Energy savings thanks to the best performance low e glass used, warm edge spacers and profiles
- Durability given by the high performance materials used according to quality standards and safety regulations
- Sustainability The impact on the environment was taken into account in the design of the door, with an emphasis on energy efficiency, reuse and well being
- Customizable dimensions, shapes and accessories according to cabinet size design
- Easy installation

### DIFFERENTIATIONS

- Transparent bumper covers the vertical edges of the IGU offering a protection of the edge keeping its transparency
- Secondary sealant with a transparent material improves the IGU tightness
- Thermal performance Ug 11 W/m²K in DGU, Ug.0 6 W/m²K in TGU Differentiations



### PERFORMANCES

- High performance insulated glass Ug 11 W/m²K in DGU, Ug 0.6 W/m²K in TGU
- High mechanical resistance
- Perfectly clear transparent edges
- Certified according EN 1279 2 1279 3 1279 6

CHARACTERISTICS	STANDARD (CLEAR+LOW-E)	ANTIREFLECTIVE (AR+LOW-E)
	PLANITHERM XN II 1.1 DGU	VISION LITE II 1.1 DGU
Light Transmission	82%	89%
Light Reflection	12%	3%
Ug (W/m²K)	1.1	1.1
Critical relative humidity	82%	82%

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## EKO<sup>®</sup> CRYSTAL-T DOOR

Frameless doors with transparent edges  
for display coolers



## ECO PURITY

Crystal clear view

### DESCRIPTION

Saint Gobain EKO® Crystal T is an insulating frameless glass door with crystal clear transparent edges.

### APPLICATIONS

EKO® Crystal T is designed to close the front of vertical commercial display coolers. With a swing self-closing system, it brings to the customer a significant impact on energy saving and an easy experience in opening to the end user.

*\*It may be customized also for semi vertical or horizontal cabinets as swing or sliding system\**  
 EKO® Crystal T IGU can be equipped with dedicated profiles and fixation systems in order to fit on any display cooler as a transparent side wall.

### BENEFITS

- EKO® Crystal T contributes to maximize the merchandising performances of the display coolers due to its frameless design with crystal clear transparent vertical sides and antireflective glass.
- Energy savings thanks to the best performance low e glass used.
- Durability given by the high performance materials used according to quality standards and safety regulations.
- Sustainability: The impact on the environment was taken into account in the design of the door, with an emphasis on energy efficiency, reuse, and well-being.
- Customizable dimensions according to cabinet size.
- Easy installation.

### DIFFERENTIATIONS

- Transparent bumper covers the vertical edges of the door, reducing its flexion in opening/closing. It reduces potential noise in closing, protects glass edges against mechanical impact during handling, installation, and final use.
- Secondary sealant with a transparent sealant improves the door tightness.
- Thermal performance for both Reflective and Antireflective door options is  $U_g 11 \text{ W/m}^2\text{K}$ .
- Antireflective door has only 2% of Outdoor Reflection, 91% Light Transmission.



### ACCESSORIES

**Hinge system:** customizable and adaptable for gravity, hydraulic, or other hinge type as per customer needs.

**Handle adapted:** to customer's handle or equipped with Saint Gobain designed handle.

### PERFORMANCES

- High performance insulated glass  $U_g 11 \text{ W/m}^2\text{K}$
- High mechanical resistance

CHARACTERISTICS	STANDARD (CLEAR+LOW-E)	ANTIREFLECTIVE (AR+LOW-E)
	PLANITHERM XN II 1.1 DGU	VISION LITE II 1.1 DGU
Light Transmission	82%	89%
Light Reflection	12%	3%
$U_g \text{ (W/m}^2\text{K)}$	1.1	1.1
Critical relative humidity	82%	82%

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