

# Choose the right glass unit for your window!

... heat insulated, acoustic or solar control?





## Top-Glas

#### **LOW EMISSION GLASS**

One of the main tasks of the modern glass production industry is the limitation of heat emission.

A low emission double-glazed unit consists of two panes of glass, of which one (Thermofloat type) contains an invisible composition of metals (the socalled low emission coating). The space between the two panes of glazing is filled with noble gas to further reduce the heat transfer coefficient Ug.



#### **Advantages**

- helps to economise on heating expenses,
- guarantees optimum room temperature,
- ensures high light transmission,
- reduces ultraviolet transmission (UV),
- helps protect the environment by reduced emission of carbon dioxide into the atmosphere.

## Largest Polish producer

THERMAL INSULATING DOUBLE GLASS UNIT STRUCTURE

- 1 float glass
- 2 low emission layer
- 3 cavity between panes
- **4** internal insulation with sealant Butyl
- 5 spacer bar
- **6** moisture inhibitor molecular sieve
- **7** external sealant tiokol or silicon

Press-Glas firm was founded in 1991 and thanks to the continual perfection of the system of production management and customer service, as well as systematic modernisation of technological equipment, while also increasing the quality of products it has become the leader on the glass market. All investments are undertaken to offer a better product range intended to satisfy consumer needs. Their visible satisfaction regarding the partnership with Press-Glas company is the most important justification for such decisions. Press-Glas has received such awards as the "Kryształowe Skrzydła" (The Crystal Wing)", as well as "Gazela Biznesu" (The Gazelle of Business) and the flagship product of low emission glass known as Top-Glas with a coefficient of Ug=1,1 was awarded a gold medal at the Budma construction fair of Poznań.

#### **MARKET OFFER:**

Types of double glazed glass units:

- thermal insulation,
- solar control,
- safety and security,
- acoustic,
- fire resistant,
- with ornamental glass.
- with internal window dividers.

#### **GLASS UNIT STRUCTURE**

A double glazing glass unit consists of two panes of glass, separated by a spacer bar filled with molecular sieve, and insulated with sealant mass which ensures hermetic properties. On the inside of the glass unit one can assemble decorative internal window dividers in RAL colours or within a wooden scaleboard.

	Type of glass	Structure [mm]	Heat transfer coefficient Ug [W/m²K]	
Top-Glas Plus	Ug=0,6	4T/10/4/10/4T	with krypton	0,6
Top-Glas K	Ug=0,9	4T/16/4T	with krypton	0,9
Top-Glas Ultra	Ug=1,0	4/16/4T	with argon	1,0
Top-Glas	Ug=1,1	4/16/4T	with argon	1,1
Standard	Ug=2,9	4/16/4	with air	2,9

T – Thermofloat (glass with low emission layer))

#### Warm edge

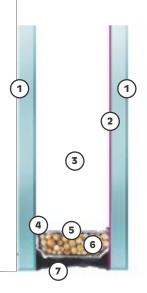
The application of a warm spacerbar improves thermal insulation along the edges, which in turn increases the temperature in this area and reduces the risk of temporary water vapour condensation. In order to assure the highest level of parameters, a warm spacerbar applied in double glazing glass should not be cut or connected at corners by plastic connectors.

Such a method of forming a spacerbar has the effect of reducing the imperviousness of the glass units, which can cause faster losses of noble gas in the spacing between the two panes, which in turn causes a worsening of heat insulation and destroys the benefits of using warm spacerbars. The weak points of corners in double glazing glass made from cut frames are eliminated by the use of a bent spacer bar at the corners, which is one of the fundamental solutions in the direction of creating products of the highest quality parameters.

#### **Press-Glas offers:**

- bent spacer bar with thin walls of stainless steel,







#### **SOLAR CONTROL GLASS**

The current trend of clear architectural solutions for offices and buildings of public use has forced the use of a greater variety of glass panes. Solar control glass is the answer to the demands of modern architects who desire to change the traditional construction materials for better ones relating to quality, aesthetics, better use of energy and easier assembly.

It can be divided into absorptive, reflective and selective types. The basic colours of solar control glass are blue, green, brown, grey and neutral. Press-Glas company offers such glass as Antelio, Antisol, Combi, Stopray, Stopsol, Sunergy and Sun-Guard.

#### **SAFETY AND SECURITY GLASS**

Safety glass should be used in cases where there is a risk of glass breakage and danger to people who are within the range of glass particles (hospitals, schools, creches, shop windows). Security glass panes with increased resistance to burglary are used in cases where we want to protect a given building, while also preserving the aesthetics of the elevation or partition walls (by eliminating window bars, shutters, roller blinds). The application of safety and security glass panes depends on the degree of risk, the function of the protected property, the distance from where people are located from the zone of direct risk.

	Place of application	Categories of resistance	Notes
1	flats, schools, offices, manufacturing facilities: - inside doors, - windows on the ground floor, - windows on the upper floors.	P1A	Protects against injury at breakage, making it less possible to break the glass when slamming a door or window.
2	kiosks, detached houses, ground floor windows in blocks of flats, hotel and office windows, retail outlets of minor protec- tive value, gymnasiums and sports centres.	P2A	Protects against injury, may constitute a temporal protection against a break-in attempt.
3	hotel and office entry areas, store fronts, retail outlets of major protective value, villas, chemist shops.	P3A, P4A	Serves as an impendiment to a break-in; can replace a protective grid of 150 mm mesh made of steel wire of 10 mm diameter.
4	museums, antique shops, art galleries, bank operating areas, shops of major protective value, luxury villas.	P5A, P6B	Serves as an impediment to a break-in; can replace protective steel grid made of 12 mm rods.
5	jewellery shops, banks, special purpose buildings, shop windows of major protective value.	P7B, P8B	Glass which is highly resistant to break-ins; can replace protective steel grid made of 16 mm rods.

#### **ACOUSTIC DOUBLE GLAZED UNITS**

Protection against noise must be applied everywhere, where noise can not be liquidated completely. In such cases we come face to face with acoustic double glazed units. Acoustic double glazed units are constructed based on the asymmetry of the assembled panes of glass, flexible bonding of the panes, and the use of attenuation gases in the space between the panes. Before choosing a suitable unit, the source of noise should be always specified and other influential factors should be identified. Press - Glas possesses certification for sound absorbing glass with an acoustic insulation factor ranging between 34 dB and 51 dB.

### Structure and coefficients of acoustic double glazed units produced by Press-Glas and confirmed by certification

		Heat transfer coefficient Ug [W/m²K]
	R <sub>W</sub> [dB]	T
Argon	34	1,1
SF <sub>6</sub> + Argon	36	1,9
Argon	36	1,1
SF <sub>6</sub> + Argon	37	1,9
SF <sub>6</sub> + Argon	38	1,9
Argon	38	1,1
Argon	39	1,1
SF <sub>6</sub>	40	1,9
Argon	40	1,1
Argon	42	1,1
Argon/Air	43	0,7
Argon	44	1,1
Argon	51	1,1
	SF <sub>6</sub> + Argon Argon SF <sub>6</sub> + Argon SF <sub>6</sub> + Argon Argon Argon Argon Argon Argon Argon Argon Argon	Argon 34  SF <sub>6</sub> + Argon 36  Argon 36  SF <sub>6</sub> + Argon 37  SF <sub>6</sub> + Argon 38  Argon 39  SF <sub>6</sub> 40  Argon 40  Argon 42  Argon/Air 43  Argon 44

#### **FIRE RESISTANT GLASS**

The glazed partitions must in many cases meet the fire-fighting regulations relating to flame-retardation and the safe evacuation of the building users. Those requirements are very often met through the use of fire-resistant glass. Press-Glas offers PYROBELITE & PYROBEL fire-resistant glass manufactured by the Glaverbel company in the class types E30 – E1120. On account of the fact that fire-resistant glass may be built in internally or externally as monolithic or double-glazed glass, the offer includes glass for internal and external application types, which are quite different with respect to their construction.

Trade name *	Туре	Thickness **[mm]
PYROBELite 7	E 30	7
PYROBEL 8	EI 15/ E30	8
PYROBEL 16	El 30/ E45	16
PYROBEL EI 45/16	EI 45/ E 60	16
PYROBEL 25	EI 60	25
PYROBEL 35	El 90	37
PYROBEL 52	EI 120	52

- \* The fire resistant glass can be used for internal and external applications following assembly with the laminated glass.
- \*\* The fire resistant glass allows a thickness tolerance of  $\pm$ 7-3mm.

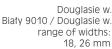
#### **MODERN TECHNOLOGY AND TRADITIONAL LOOKS-WINDOW DIVIDERS**

Window dividers are an attractive construction material. Windows which entail the use of dividers take on a new and enhanced appearance. Press-Glass offers a certified range of dividers which are available in a wide variety of RAL colours including two-coloured sets. Dividers can be bent into curves or circles, and fixed at different angles. The use of dividers in windows is carried out on the basis customer requests.

> Quadra Braz range of widths: 8 mm Srebrny range of widths: 8 mm



range of widths: 8, 18, 26 mm



Jasny dab Biały 9010 / Jasny dab range of widths: 18, 26 mm

Złoty dąb Biały 9010 / Złoty dąb range of widths: 18, 26 mm

Ciemny dąb Biały 9010 / Ciemny dąb range of widths: 18, 26 mm

Dąb bagienny Biały 9010 / Dąb bagienny range of widths: 18, 26 mm

> Orzech Biały 9010 / Orzech range of widths: 18, 26 mm

Mahoń Biały 9010 / Mahoń range of widths: 18, 26 mm

Brąz 8014 Biały 9010 / Braz 8014 range of widths: 18, 26 mm

Brąz 8017 Biały 9010/ Brąz 8017 range of widths: 18, 26 mm

C. brąz 8022 Biały 9010 / C. brąz 8022 range of widths: 18, 26 mm

Brunatno - Czerwony 8012 range of widths: 18, 26 mm









01 Altdeutsch bezbarwny (clear) 02 Altdeutsch brązowy (brown)

03 Master-Ligne

04 Master-Carre

05 Master-Point

09 Delta 10 Waterdrop

12 Satinato

15 Martele

17 Niagara 18 Crepi

19 Flutes

16 Chinchilla

13 Silvit 14 Atlantic

06 Kura bezbarwny (clear)

07 Kura brązowy (brown)

08 Delta matowy (mat)







11

12

















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SERVE AS REFERENCE FOR ANY CLAIMS.

20 Flutes piaskowany (sandblasted)