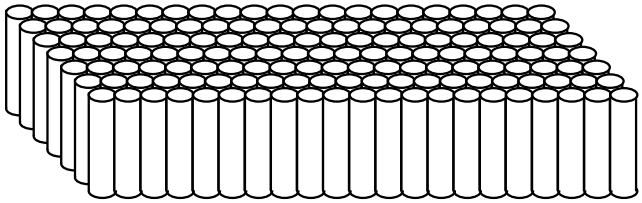
INFOTEXT

We take architectural glass a step ahead.

KAPI*PANE* Transparent Insulation (PMMA)

Structure

KAPI*PANE* Transparent Insulation Material PMMA consists of a large number of thin-walled capillaries oriented at right angles to the surface. The cut edges of the open capillaries are welded together to form one unit. The diameter of the capillaries is approx. 2.5 mm.



Material

The material used for KAPI*PANE* is clear PMMA (Plexiglas®) with a maximum temperature for continuous use of 80°C. The density of the capillary structure is approx. 30 kg/m³.

Fluctuations may be detected in the density of the capillary slabs and in the diameter of the capillaries when viewing and looking through the insulation. This "roughness" in appearance gives the product a very lively appearance. Under certain lighting conditions, production-specific joints may also become apparent as fine lines within the capillary slab.

Function

KAPI*PANE* is optimised for maximum thermal insulation **and** solar transmission. The U-value falls as the thickness increases. Thanks to almost loss-free reflection, radiation transmission falls only slightly on the walls of the capillaries.

Form of delivery

KAPI*PANE* is delivered in the dimensions as ordered. The KAPI*PANE* structure is very sensitive to breakage and impacts. For handling and transport reasons, the side lengths should be limited to a maximum of approx. 140 cm x 100 cm. It is possible to line up several sections during installation; subsequent cutting is also possible. In order to avoid settling phenomena, KAPIPANE must be supported after a maximum of 1 m height. We also recommend that the material should be compressed during installation. For this reason, the vertical dimension should be ordered 5 % larger. The maximum available slab thickness is 160 mm.

Technical Data KAPI*PANE* made of PMMA, with air as filler gas

Thickness	20 mm	30 mm	40 mm	60 mm	80 mm	120 mm
U (W/(m²K))	2.0	1.6	1.4	1.1	0.9	0.7
U (Btu/hr/ft²/°F)	0.35	0.28	0.25	0.19	0.16	0.12
T_v	91 %	90 %	90 %	89 %	89 %	88 %
TSET	91 %	91 %	91 %	90 %	90 %	88 %

Legend and related values:

	unit	standard	technical term
U	W/(m²K) or Btu/hr/ft²/°F	DIN EN 673 DIN EN 674	Thermal transmittance, (ΔT=10°C)
TSET	%	DIN EN 410	Total solar energy transmittance or solar heat gain coefficient
T_v	%	DIN EN 410	Light transmission (direct/hemispheric)

The above data are approximate data. They are based on measurements of recognized test institutes and calculations derived from these measurements.
At the moment, not all suppliers have adapted their key data to the currently applicable regulations. When making comparisons, please pay attention to the relevant manufacturer's notes. On the basis of the old standards, total solar energy transmittances as well as shading coefficient values are each 1-3% lower, the former U-value according to DIBt/DIN is 0.1 W/(m²K) lower.
U-values refer to European Standard EN 673. Please contact our sales department for values according to ASHRAE conditions.

Use in double glazed U-profile glass

For use in double glazed U-profile glass (LINIT + Profilit) please refer to our product documentation "OKA*PANE* light-diffusing insulating panels"
KAPI*PANE* for U-profile glass is available in lengths of up to 130 cm.
On account of the consistency of the material, we only recommend prefabrication in our factory, since the aesthetically pleasing visual quality of our product can only be guaranteed in this way.