SibuGlas DECORATIVE SHEETS + SibuGlas BACKING SHEETS

for gluing and pressing onto absorbent wood materials such as MDF or particle board!

SibuGlas currently offers a vast range of applications whether for home-furniture, shop windows, bars, hotels or trade fair stands.
SibuGlas is a multi-layer sheet consisting of PMMA, PU-leather and a special synthetic fibre, which can be bonded onto absorbent surfaces using PVA white glue. In order to ensure optimum flatness, we also deliver an accompanying, technically matching backing sheet.

SibuGlas / SibuGlas AR+ WITH SCRATCH-RESISTANT SURFACE INCL. SibuGlas BACKING SHEET

A **major processing advantage** of our SibuGlas (SG) sheets is provided by a **special synthetic fibre on the reverse side (on decorative sheet + backing sheet)**. Using a roller with PVA white glue, these completely saturated fibres are applied as evenly and as quickly as possible on both sides of the absorbent wooden base sheet. This composite is then placed in a press.

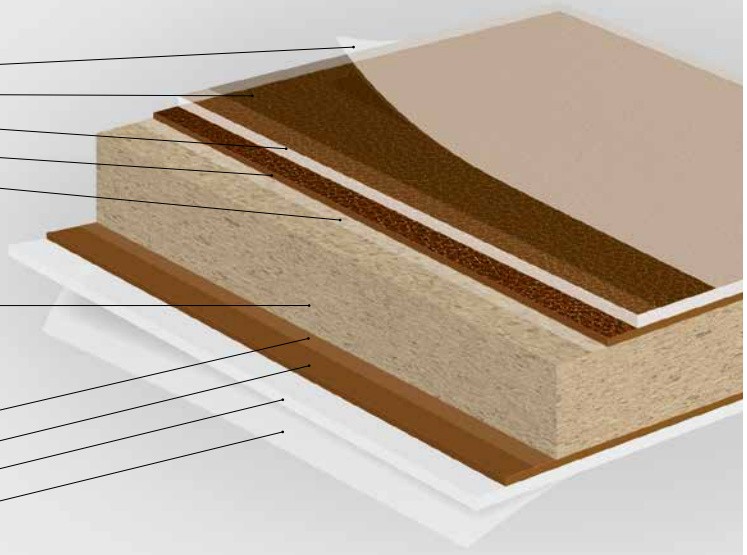
The saturated, synthetic fibres compensate for any small surface irregularities or fine, overseen particles of dirt. **As a result, perfect, high-gloss surfaces can be simply created.**

SG DESCRIPTION / STRUCTURE

SG decorative sheet
- PE protective film
- Scratch-resistant surface, only in the **AR+** version
- Transparent, UV-resistant, UV-impermeable and chemical-resistant PMMA layer
- PU-leather/decorative layer, special synthetic fibre
- PVA white glue

Wooden base sheet,
minimum thickness 16 mm!

SG backing sheet
- PVA white glue
- PU-leather/single colour, special synthetic fibre
- PMMA sheet
- PE protective film



SG decorative sheets that are glued and pressed in this manner can be processed simply and efficiently with the majority of woodworking machines and tools. During processing, the PE protective film must remain on the surface. The employment of suitable and sharp tools prevents damage.
Prior to production tests are recommended to determine individually optimum machine parameters, tool settings and cutting speeds.

SibuGlas DECORATIVE SHEET – PRODUCT STRUCTURE

SibuGlas is a compound material consisting of the following individual components. The characteristics of the various materials and correct processing are of decisive importance for the overall quality of components/decorative elements using SibuGlas.

Structure: SibuGlas	**Material: SibuGlas**
1,1 mm transparent layer	PMMA acrylate
0,8 - 1,3 mm decorative layer	PU-leather
Fabric	Special synthetic fibre

Structure: SibuGlas AR+	**Material: SibuGlas AR+**
2,0 mm transparent layer	**Scratch-resistant surface coating** on PMMA acrylate
0,8 – 1,3 mm decorative layer	PU-leather
Fabric	Special synthetic fibre

The 1,1- and 2,0 mm-thick, highly transparent layer lends SibuGlas a genuine glass appearance with outstanding product characteristics with regard to bonding with the respective wooden base material such as particle or MDF board.

SibuGlas BACKING SHEET – PRODUCT STRUCTURE

Structure: SG backing sheet	**Material: SG backing sheet**
1,1 mm transparent layer	PMMA acrylate
or	
2,0 mm transparent layer for **SG AR+**	PMMA acrylate
0,8 mm single-colour, decorative layer	PU-leather
Fabric	Special synthetic fibre

A **technically matching backing sheet is required** for the glued and pressed composite (surface + wooden base sheet + backing sheet), which is ideally attuned to the characteristics of the materials used. This virtually excludes warping caused by heat, cold or fluctuating humidity levels.

SibuGlas (SG) PRODUCT CHARACTERISTICS

STEP-BY-STEP BONDING INSTRUCTIONS FOR SibuGlas SHEETS WITH PVA WHITE GLUE

Glue application: only process flat, wooden base sheets!
Conditioned SG decorative and SG backing sheet, as well as the wooden base sheet, should be laid out adjacent to one another on a straight, clean and sufficiently large work table. The cut wooden base sheet must be roughly 10 mm larger than the SG sheets.
Both SG sheets should first be generously coated with PVA glue using a roller. Owing to the highly absorbent SG reverse side, the consumption of PVA white glue is considerable and amounts to approx. 200 - 300 g/m^2.
Shortly before bonding, the synthetic fibres should have a wet, sticky shine. Subsequently, both SibuGlas sheets are positioned as quickly as possible on the middle of the wooden base sheet.

Warning! Glue should not be applied directly to the wooden base sheet, as this can have a negative effect on evenness!

Pressing: only process flat, wooden base sheets!
The composite sheet is now placed in the press for approx. 15 minutes at 30 °C. Do not apply excessive pressure and take into account both your know-how and the values gained from personal experience.
Important! As soon as the sheets are removed from the press, they must be stored **under stacking pressure for at least 12 hours** in a **FLAT** position. A genuinely even surface is extremely important for the flatness of the composite sheet.

A second option for small quantities is press bonding the sheets in the machine overnight at 20 °C. There is no need for stacking pressure for that type of processing.

Warning! Always clean the press thoroughly prior to processing SG! The cleanliness of the sheet press will be mirrored by the structured surface!

Wooden base sheets with minimum warping (exception): If from the outset the wooden base sheets are not exactly flat, the backing sheet should always be glued onto the hollow side (inner radius) and the decorative sheet onto the side with the outward warp (outer radius). This facilitates further processing and installation.

Edging application: As usual, any standard edging can be mounted in the familiar manner!

Cutting to length/edge trimming and other work phases: At the earliest, complete this work 24 hours after gluing/pressing!

FURTHER MECHANICAL PROCESSING

PMMA starts to melt at approx. 110 °C, therefore feed in carefully and slowly!

Basic rule! High speed – slow feed!

Sawing/edge trimming: In order to optimise cut quality, we suggest the use of narrow, unset, carbide tipped circular saw blades for plastic and laminate surfaces with as many alternate and/or hollow teeth as possible. The saw blade should have a minimum speed of at least 2800 rpm. The sheets should be sawn individually and scoring may not be employed. Ideally, the saw blade should not protrude by more than 10 - 20 mm.

A saw blade tip: Leitz, Art. No. 58453, diameter: 250 mm, width: 2,4 / 1,6 mm, number of teeth: 30, alternate teeth Z80/9.82. The alternate teeth are bevelled on the outside (bevelling: 0,3 mm, 45 °C) and must also always be sharpened. **For a clean cut edge it is important that the saw blade is really sharp!**

Important! Do not use set-up circular saw blades!

Milling: As is the case with sawing, high processing temperatures should be avoided wherever possible. PMMA starts to melt at approx. 110 °C, therefore use high speeds and careful and slow feeding!
As a rule, the machinery and tools employed for woodworking are suitable for the processing of our SibuGlas sheets bonded onto wooden base sheets.
Narrow milling edges can be subsequently improved optically with a scraper or emery paste.
For a clean-cut edge, it is important that the tools are always well sharpened!

Drilling: Use a wood drill!
Hinge drillings and processing using a Forstner bit are no problem.

Cleaning SibuGlas: SibuGlas possesses an excellent optical depth effect.
Liquid cleaning agents and water are extremely well suited to the cleaning of chemical-resistant SibuGlas surfaces. Dirty cloths and abrasive cleaning agents are to be avoided.

Cleaning SibuGlas AR+: The SibuGlas AR+ surface has additionally a high-quality, glossy, scratch- and abrasion-resistance coating. Mechanical cleaning processes using, e.g. razor blades, knives or scrapers may not be used. Liquid cleaning agents and water are ideal for the cleaning of chemical-resistant SibuGlas sheets. In addition, SibuGlas AR+ is particularly chemical-resistant!

Suitable for cleaning are:
- Lukewarm water with a small amount of washing up liquid
- Isopropanol (2-Propanol)
- Pure light petrol (benzine)
- Soft, damp viscose sponge
- Soft, damp, fluff-free cloth
- Sponge cloth
- Window leather
- Glove lining
- Cotton tea towel
- Shower scraper with soft rubber lip
- Moist micro-fibre cloth for finishing (e.g. Vileda Microclean)