



LACOBEL / MATELAC

PROCESSING GUIDE

VERSION 3.0 – JUNE 2016

Your Dreams, Our Challenge

This version of the guide replaces and cancels all previous versions.
Please regularly check www.agc-yourglass.com for any updates.

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1. INTRODUCTION

The purpose of this guide is to ensure that users of Lacobel/Matelac glass are able to process the product correctly - cutting, edge shaping, etc. - so that it meets the end-user's requirements in full.

Lacobel/Matelac is a decorative glass that needs careful handling. If you are processing Lacobel/Matelac for the first time, please contact your local AGC Glass Europe agent, through whom you can obtain full guidance on technical issues.

Lacobel/Matelac has been designed for indoor use. Care should be taken when handling and processing the glass in order to avoid damaging the paint coating. Therefore we strongly recommend that anything coming into contact with the paint coating during the processing stage be pre-approved.

For information on installation, please read the "Lacobel/Matelac Installation Guide" (also available on www.agc-yourglass.com).

2. PACKAGING

After production, special attention is paid to the packaging in order to preserve product quality.

Lacobel/Matelac is available in standard sizes (for more details, consult our "Product Catalogue" on www.agc-yourglass.com).

The following systems ensure that the glass is correctly packaged:

- The painted sheets of glass are standard packed with the paint facing the stillage.
- The packs may be turned around upon request so that the paint is facing outwards.
- The sheets of glass are separated by paper spacers.
- The exact contents are indicated on the label affixed to the edge of the pack or packaging.

3. UNLOADING

The glass packs should be inspected immediately upon arrival. AGC will not accept any claims regarding defects occurring after delivery, or during handling, processing and installation of the final product in the building if the Lacobel/Matelac processing recommendations have not been respected.

Conditions for unloading Lacobel/Matelac:

- The rack must be positioned on perfectly level ground.
- The appropriate unloading device or grab must be used.
- The grab must be perfectly centred.
- Care must be taken to avoid damaging the protective packaging during handling.
- The glass should be stored on appropriate racks.

General comments:

- Grabs, slings, lifting beams and other hoisting equipment must comply with prevailing regulations and be approved by the relevant authorities.
- Personnel safety must be ensured at all times. Keep all unnecessary personnel out of the handling area. Wear appropriate personal protective gear.
- Personnel must have received the required training.

4. STORAGE PRIOR TO HANDLING

Storing packs correctly reduces the risk of chemical or mechanical damage to the glazings and will therefore make them easier to install.

As a general rule, the glass should be stored in a dry, well ventilated place to avoid major fluctuations in temperature and humidity that may cause condensation to form on the glass. Such variations generally occur near loading and unloading areas. No water must be allowed to come into contact with the sheets of glass and they should never be stored outdoors. No direct UV radiation must be allowed to protect the coating against fading.

The glass should always be stored away from sources of heat and other corrosive materials or agents such as organic solvent vapours, chemicals, acids or fuel oil, etc.

Factory racks are used for packaging during transport and are not designed to be used for storage.

Consequently, the PLFs must be stored vertically on racks that have a soft base, such as wooden slats.

Separate the packs with spacers ensuring that all packs of the same size are stored together.

5. STORAGE AFTER OPENING / HANDLING THE PACKS

The same conditions for storing the packs prior to opening should also be applied once the packs have been opened. However, it is important to bear in mind a number of additional points:

- Care should be taken to ensure that the ambient air is not polluted by any corrosive elements such as chlorine or sulphur. Sources of such elements include machinery fitted with thermal engines, battery-charging points, road salt on the ground and so forth.
- The sheets must be moved using a suction-pad lifting beam or an automatic unstacking machine.
- If the glass is handled by placing suction pads on the paint, the suction pads must be kept clean.

5.1. Removing wooden and metal packaging

a) Wooden packaging: endcap

- Set the endcap on a support inclined at a slight angle (5°).
- Cut the vertical strapping.
- Remove the upper cover and then the two side covers.
- Remove the plastic protecting the glass.

b) Metal packaging: L frame

- Ensure that the pack rests on the uprights, not on the posts.
- Open the posts.
- Remove the posts.

5.2. Handling PLFs and DLFs

- PLFs must be lifted with a suction pad lifting beam or with an automatic unstacking machine.
- Labels and/or tape on the edge of the pack must be removed before handling PLFs.
- The lifting beam must be properly centred.
- The PLF must first be lifted slightly, and then moved away from the others.
- Care must be taken to prevent scratches, especially when handling coated glass, by ensuring that the edge of one PLF does not rub against the surface of another.

General comments:

- Any direct contact with hard materials must be avoided.
- Suction pad lifting beams and other hoisting equipment must comply with prevailing regulations and be approved by the relevant authorities.
- Personnel must check that the suction pads are adhering correctly before any further manipulation.
- Ensure the safety of personnel at all times. Keep all unnecessary personnel out of the handling area. Wear appropriate personal protective gear.
- Personnel must have received the required training.

6. QUALITY CONTROL

Lacobel/Matelac is manufactured in factories that are ISO 9001 certified (certificate available upon request). There is not yet a published EN standard for painted glass. Lacobel/Matelac packs must be inspected immediately upon arrival.

7. CUTTING

The following specific precautions must be taken when cutting:

- The cutting and transfer tables must be covered with felt and cleaned frequently to avoid scratches caused by small glass splinters that could damage protective paints and varnishes.
- The glass should be cut with the painted side face down on the cutting table.
- Reduce the pressure of the cutting tool to avoid splinters.
- Use minimal quantities of neutral cutting oils (*).
- .

(*) Recommended cutting oil:

Product description:

Acecut 5503 (ACW) or Dionol GT641 (MKU Chemie)

Suppliers:

Aachener Chemische Werke (ACW)

Adenauerstraße 20 Europark C3

D-52146 Würselen

Germany

Tel.: +49 / 2405 44970

Fax: +49 / 2405 449730

E-mail: acw@chemetall.com

MKU Chemie GMBH

Rudolf Dieselstrasse, 79

D-63322 Rödermark-Urberach

Germany

Tel.: +49 / 6074 87 520

Fax: +49 / 6074 87 5238

E-mail : Verkauf@mkuchemie.de

- Sheets of glass cut to size must be stored on racks.
- Care must be taken to insert paper or cardboard spacers in order to avoid scratches.
- AGC advises using the cutting wheels mentioned in the table below to successfully cut the glass with SAFE and SAFE+ safety backing film through the film side.
Please consult the following website to find the nearest office to you:
<http://www.bohle-group.com/shop/> or www.agc-store.com
- Correct cutting settings can differ from one cutting installation to another and can be tested by cutting test strips 100mm wide and at least 1m long. It should be possible to break the cut strips by hand.

- The below-mentioned cutting wheels can also be used to cut non-painted glass without a SAFE or SAFE+ film.
- AGC provides this information for advisory purposes. The user/customer is solely responsible for using this advice.

Cutting wheel	Angle (°)	Thickness (mm)	
B0 03A100M	100	3-4	
B0 03A110M	110	4-5	
B0 03A115M	115	5-6	
Cutting wheel including plastic holder			
B0 416A100M	100	3-4	
B0 416A110M	110	4-5	
B0 416A115M	115	5-6	

8. EDGE PROCESSING & DRILLING

Lacobel/Matelac can be shaped in any way. Below is a partial list of the different kinds of shaping options.

Edge grinding	YES
Edge treatment	YES
Drilling	YES
Serrations	YES

- Processing quality depends on clean cutting.
- Adjust the speed of the edge processing machine according to the number of grinding wheels fitted to it and the thickness of the glass.
- If using spherical grinding wheels, avoid overly angular shapes. It is advisable to use one type of grinding wheel per thickness of glass.
- If grinding a flat joint with edges, avoid edges with an angle greater than 145°.
- The quality of grinding on the painted side of Lacobel/Matelac must be smooth and free of glass shards.
- Use a non-abrasive coolant liquid (neutral pH) to prevent damage being caused to the protective coatings.
- The glass must be kept moist for the entire process to prevent it from drying naturally.
- The glass sheets shall never be stacked wet on a stillage, between edge-processing and washing.
- Clean the cooling water circuit regularly to remove glass particles and plastic particles of SAFE or SAFE+ safety backing film.
- Wash processed products immediately, preferably with de-ionized water, and dry carefully (within 30 minutes after edge processing), especially around the edges.
- Use spacers when stacking processed products.

9. WASHING

This stage involves washing, rinsing and drying the glass.

The glass must be washed in clean, deionised water with a pH of 7 (± 1), water temperature $< 40^{\circ}\text{C}$.

No hard particles (such as calcium or others) or acidic/detergent agents should be present in the water used for washing and rinsing as they may damage the paint.

The glass should be completely dry when it leaves the machine. Water droplets must be wiped off with a piece of tissue. We recommend inspecting the glass after washing.

After washing and for intermediate storage, cork discs with (self-adhesive) foam can be placed on the glass side, around the edges of each glazing to prevent contact between the glass and the paint.

10. LAMINATING

Lacobel/Matelac are painted decorative glass products for use in interior applications only.

They cannot be laminated or used in insulated glazing units, even on the inner side of the glazing unit.

The plastifiers in the PVB would have a negative influence on the adherence on the paint coating.

However, Lacobel/Matelac SAFE / SAFE+ is the perfect solution for your safety needs. Lacobel/Matelac, safety backed according to "EN12600 type B" have a similar breakage pattern to laminated glass (pieces of glass remain attached to plastic film without separating).

11. HEAT TREATMENT

Lacobel/Matelac are annealed decorative glass products covered with an organic paint. Therefore they cannot be heat strengthened nor thermally toughened.

12. SANDBLASTING

Lacobel may be partially sandblasted on the non-painted (glass) side. Matelac is by definition an acid-etched glass.

13. ACID ETCHING

Lacobel may be (partially) acid etched on the non-painted (glass) side. Matelac is by definition an acid-etched glass.

14. BENDING

Lacobel/Matelac (Safe/Safe+) cannot be bent. Lacobel/Matelac and Lacobel/Matelac Safe/Safe+ can resist to an absolute temperature of 80°C and can resist a relative temperature difference of 30°C within one sheet.

15. SCREEN PRINTING AND ENAMELLING

Lacobel/Matelac (Safe/Safe+) cannot be screen printed or enamelled, with the exception of so-called “cold” screenprinting. Lacobel/Matelac and Lacobel/Matelac Safe/Safe+ can resist to an absolute temperature of 80°C and can resist a relative temperature difference of 30°C within one sheet.

16. INSULATED GLAZING

Lacobel/Matelac are painted decorative glass products for use in interior applications only. They cannot be used in insulated glazing units, even on the inner side of the glazing unit.

17. PACKING THE PROCESSED PRODUCT

- Place the sheets vertically on or in the packing material, taking care to **avoid scratches caused by stacking** (see storage instructions).
- Separate the sheets with
 - paper or cardboard spacers
 - cork discs with (self-adhesive) foam, placed on the glass side, around the edges of each glazing to prevent contact between the glass and the paint, or
 - soft spacers, e.g. medium particle size polyolefin based interleavant powder, but **avoid organic products** such as Lucite beads, as these can scratch paintwork.
- When shrink-wrapping, perforated plastic may be used if the glass is to be stored in a dry area for a normal length of time.

18. CLEANING

For detailed cleaning instructions, please consult the “Cleaning and Maintenance Guide – Decorative Glazing” in the Lacobel or Matelac section on www.agc-yourglass.com.

19. TOUCH-UP PAINT

Small scratches and damages on the painted side of the glass due to handling, processing or installation can be repaired using AGC's FIX-IN TU Touch-up paint for standard colours, available at www.agc-store.com.

20. DISCLAIMER

This document gives recommendations on how to maximize a qualitative processing of AGC Lacobel/Matelac decorative glazing products for interior use. AGC provides this information for advisory purposes only. The user/customer is solely responsible for using this advice.

The content of this “Lacobel/Matelac Processing Guide” reflects our knowledge and experience at the time of publication. Every version of the “Lacobel/Matelac Processing Guide” bears a reference to its publication date. The newest version of the “Lacobel/Matelac Processing Guide” replaces all previous versions. Customers should be aware that the newest version may contain technical changes that must be taken into account when using AGC glass products. The latest version or a different language version of the “Lacobel/Matelac Processing Guide” and our Warranty terms may be consulted on or obtained from your local AGC representative. Customers should always check whether an updated version of the “Lacobel/Matelac Processing Guide” is available before using AGC glass products.

AGC’s warranty on glass products shall only apply if the latest version of this “Lacobel/Matelac Processing Guide”, which may be updated from time to time, is used by the customer and if all relevant requirements, standards and regulations have been taken into account by the customer for the use of the glass products. AGC has made every effort to ensure the accuracy of the information in this “Lacobel/Matelac Processing Guide”, but it cannot be held liable for any oversights, inaccuracies or typographical errors.

Customers and glass processors can always contact AGC Glass Europe’s Technical Advisory Services (TAS) for further assistance if required. Naturally, the glass processor and fitter is entirely responsible for the processing and installation of the glass including compatibility between the different materials used. AGC Glass Europe accepts liability for the product it supplies in accordance with its general sales conditions.