

Liquid glass

2 components

**Durocoat
Liquid Glass
Exe 36-150**



Application instructions for DUROCOAT LIQUID GLASS EXE 36-150

Step-1

The molds and all objects intended for casting must be absolutely clean, dry and free from defective or loose particles and poorly adhered materials.

If you choose to cast wooden surfaces, they have to be completely **dry** and it is recommended to plan and sand them properly before use.

Step-2

Construct the mold, using **glossy melamine** or **polypropylene sheets** and seal all joints with silicone or thermal glue to prevent leaks of LIQUID GLASS.

Step-3

Prepare the casting material by mixing **10,5 parts of LIQUID GLASS Component-A with 6 parts of Component-B**, by weight.

Stir the mixture thoroughly **by hand and transfer it from one pot to another 2-3 times in order to ensure proper homogenization of the 2 components**.

Do not use electric stirrers or mechanical agitators.

Step-4

(only for porous surfaces)

If the casting object does not have pores, you can omit step 4

Insulate the **porous surface**, by applying a thin layer of LIQUID GLASS (A+B) **up to 1 mm thick** by brush or roller. During its application, corners and all difficult points on the surface should be carefully covered, in order to prevent air from passing through any holes or insulation imperfections.

Surface insulation is required only on the side that will be covered by LIQUID GLASS.

After **6-8 hours**, apply a second and thicker layer of LIQUID GLASS (A+B) insulation directly onto the surface and spread it evenly by using roller or brush. If unwanted bubbles appear on the insulating layers of LIQUID GLASS during application and/or drying time, use a torch to remove them.

Step-5

Place inside the mold the insulated object – **not earlier than 7 hours**^o, and calculate the amount of LIQUID GLASS you will need depending on the thickness of the layer you want to apply. For calculating the quantity, refer to page 5 "MATERIAL QUANTITY CALCULATOR".

CAUTION !!! LIQUID GLASS preparation (A+B) must be used within 20 minutes and its thickness should not exceed 15 mm.

If the object you want to manufacture requires **thickness greater than 15 mm**, then the casting should be **repeated** multiple times – **in more than one layer**.

^oif the casting surface doesn't require insulation - it is not porous, place it directly in the mold.



Step-6

Apply the first layer of LIQUID GLASS with **a maximum thickness of 15 mm**.

After casting, immediately remove any bubbles by using a **torch**.

CAUTION !!!! Do not keep the torch in close distance from LIQUID GLASS, neither insist on the same spot for a long time, because you may burn the material.

In case that bubbles are formed during the polymerization-drying of LIQUID GLASS, they are usually caused by poor insulation of the surfaces allowing them to breathe (STEP 4). Use the torch to remove them and continue the procedure until the surface quits breathing and bubbles stop forming.

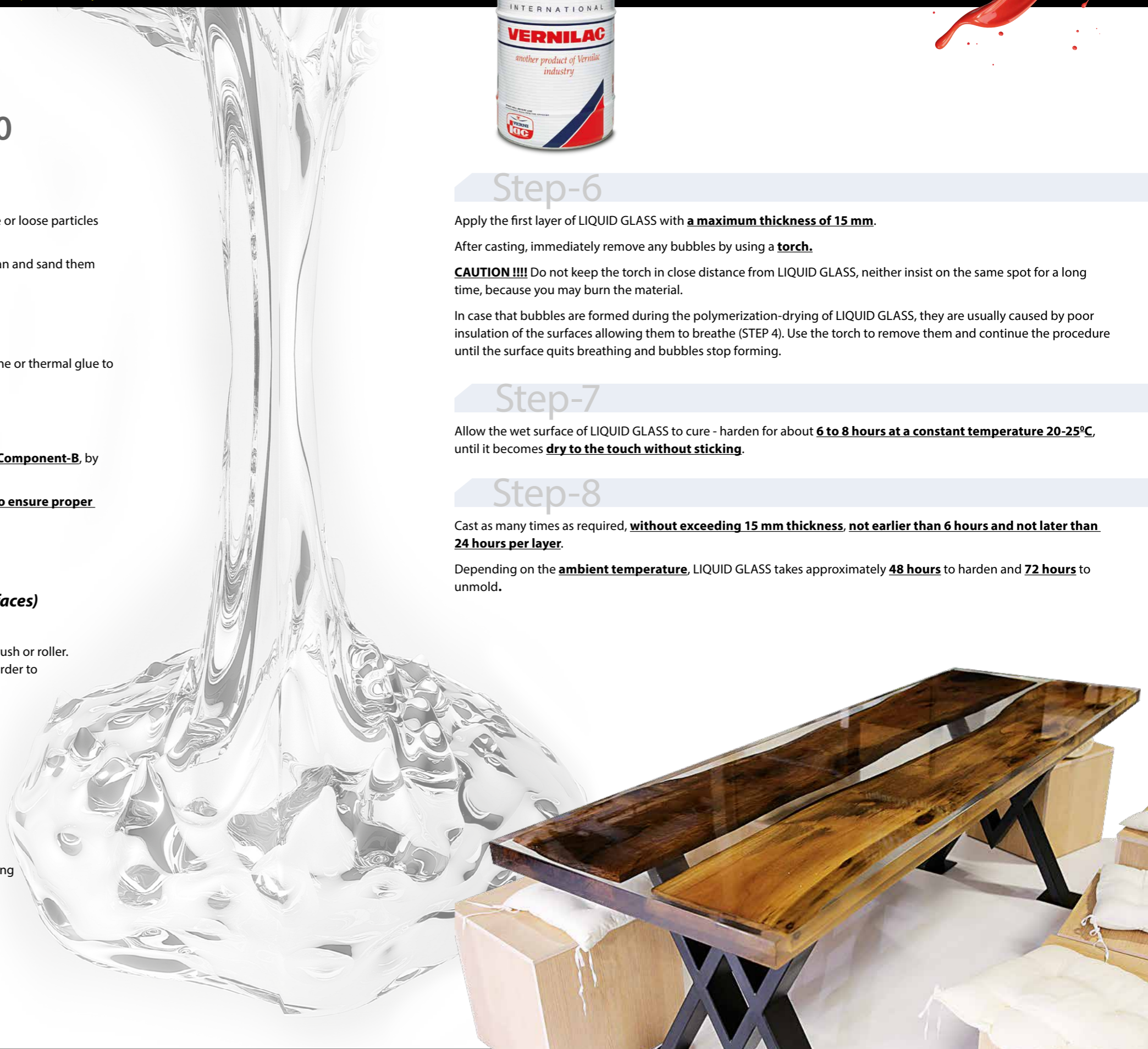
Step-7

Allow the wet surface of LIQUID GLASS to cure - harden for about **6 to 8 hours at a constant temperature 20-25°C**, until it becomes **dry to the touch without sticking**.

Step-8

Cast as many times as required, **without exceeding 15 mm thickness, not earlier than 6 hours and not later than 24 hours per layer**.

Depending on the **ambient temperature**, LIQUID GLASS takes approximately **48 hours** to harden and **72 hours** to unmold.





Step-9

Fettling can be achieved in 3 different ways:

1. Leave it as it is, if the aesthetic result is satisfactory.
2. Sand the surface with Free Cut grid 320 and apply by spray gun a crossed coating of **Two component Gloss Acrylic Varnish No. 4695**.
3. Polish the surface with a **rotary polisher 7 days after the last layer** until you achieve the desired effect.



RELEVANT REMARKS:

- During application and drying, the temperature **in the casting and drying area** should be **constant** at 20-25 °C.
- **LIQUID GLASS** can be sanded, milled, rasped, sawn, planed, sharpened, pierced and lathed.
- Breaks and / or deep scratches on the surface of **LIQUID GLASS** can be repaired with the material itself.
- **LIQUID GLASS** can be tinted with **VERNILAC's** water based decorative colorants in small quantities.
- **LIQUID GLASS** should only be casted inside clean, dust-free application areas or booths.
- It is not necessary to use a mold to apply **LIQUID GLASS**. In case you use a mold it is compulsory to flatten it.
- **LIQUID GLASS** has specific usage guidelines for the correct mixing ratio, which must be followed to avoid incomplete hardening of the final object.
- All **porous surfaces** that we want to cast should be **completely dry** and very well insulated (STEP 4).
- **LIQUID GLASS is ONLY for internal use.**
- 1 kg. of LIQUID GLASS corresponds to 1 liter and covers 1 m² for a layer thickness of 1 mm.

QUANTITY CALCULATOR

In order to correctly calculate the amount of material that you will need for your construction, use the following calculation formula:

$$\text{Dimension 1} \times \text{Dimension 2} \times \text{TOTAL THICKNESS}^{(2)} \times 1000 = \text{Litre LIQUID GLASS}$$

CAUTION !!!! The Dimensions 1 + 2 and TOTAL THICKNESS, are reported in METERS.

For Example: If you want to construct a table with liquid glass, where **the dimensions of LIQUID GLASS** are: **(Length) 1.80 m (Width) 0.40 m (Thickness) 6 cm**

then, the LIQUID GLASS liters you will need are:

$$1.8 \times 0.40 \times 0.06 \times 1,000 = 43.20 \text{ Liters}$$



THICKNESS	Uom	TOTAL THICKNESS ⁽²⁾
0,50	cm	0,005
1,00	cm	0,010
1,50	cm	0,015
2,00	cm	0,020
2,50	cm	0,025
3,00	cm	0,030
3,50	cm	0,035
4,00	cm	0,040
4,50	cm	0,045
5,00	cm	0,050
5,50	cm	0,055
6,00	cm	0,060
6,50	cm	0,065
7,00	cm	0,070
7,50	cm	0,075
8,00	cm	0,080
8,50	cm	0,085
9,00	cm	0,090
9,50	cm	0,095
10,00	cm	0,100





