

Materials for Block-Moulds



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1.0 MODEL PREPARATION

Surfaces

1.1 Absorbing surfaces

RECKLI Polishing Wax

1.2 Non-absorbing surfaces

RECKLI Mould Wax

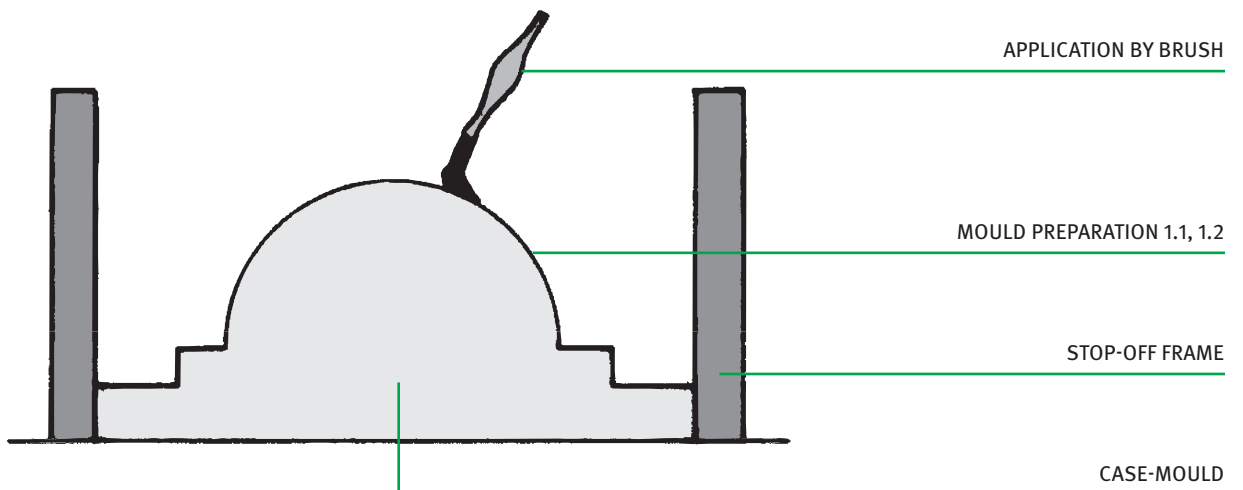
Application

The release agents are ready-to-use and can be brushed or sprayed.

For a safe release 2-3 layers are to be applied. Before application of a following layer the preceding one must be completely dry.

Consumption:

Approx. 50 g/m²



2 FRONT LAYER | POURING TECHNIQUE

Property

elastic

RECKLI PUR-Elastomer A40,
A55 Type K, A70

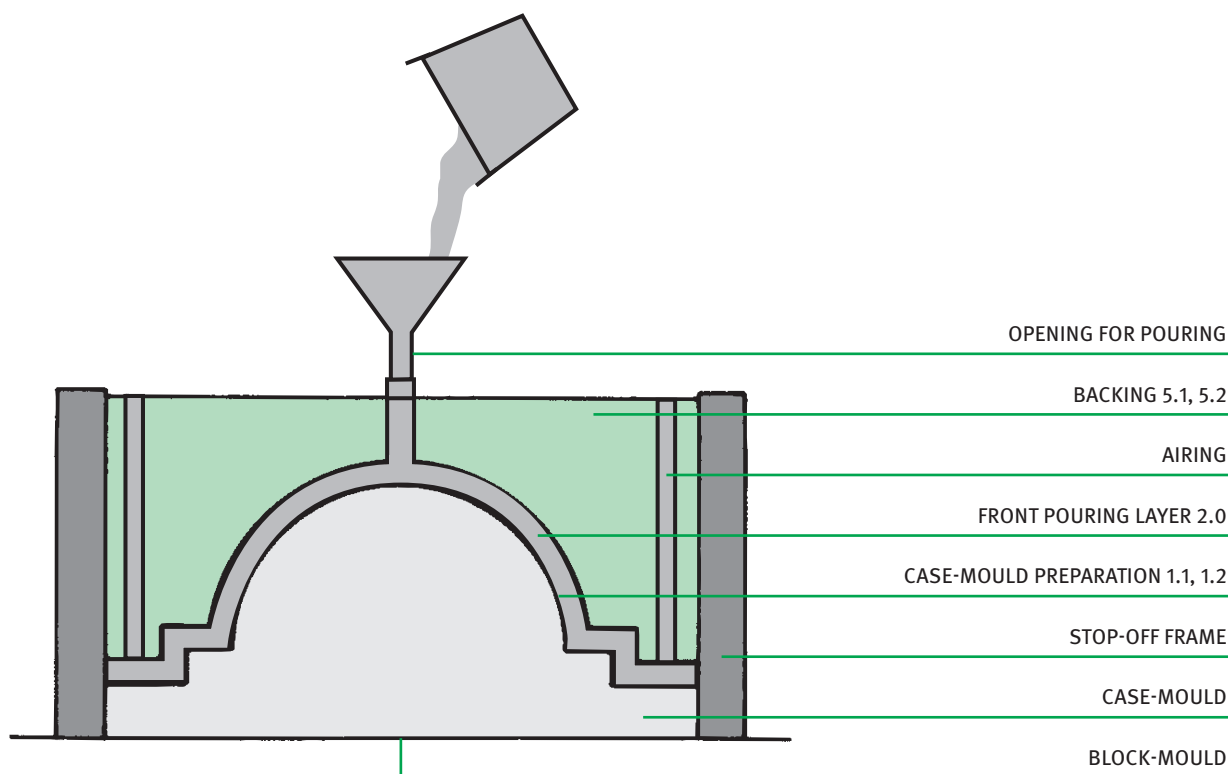
Application

Preparation of the surface according to 1.1 or 1.2. RECKLI PUR Elastomer and is a two-component liquid resin curing nearly free of shrinkage. Hardener and base component are mixed thoroughly and poured onto the model surface (s. technical data sheet).

Layer thickness depending on the case of application: 10-20 mm

Consumption:
Approx. 1.4 kg/l

Pot life:
PUR Elastomers
approx. 15-20 minutes (500 g)



3.0 FRONT LAYER | BRUSHING TECHNIQUE

Property

3.1 hard

RECKLI Epoxy OH

RECKLI Epoxy OH scratch-resistant

Application

RECKLI Epoxy OH is a hard, impact-resistant gelcoat resin being applied onto the model surface in two layers. We suggest to add a small quantity of pigment paste to one of the layers, so that the layer thickness can be controlled easier.

Total layer thickness:

Approx. 2-3 mm.

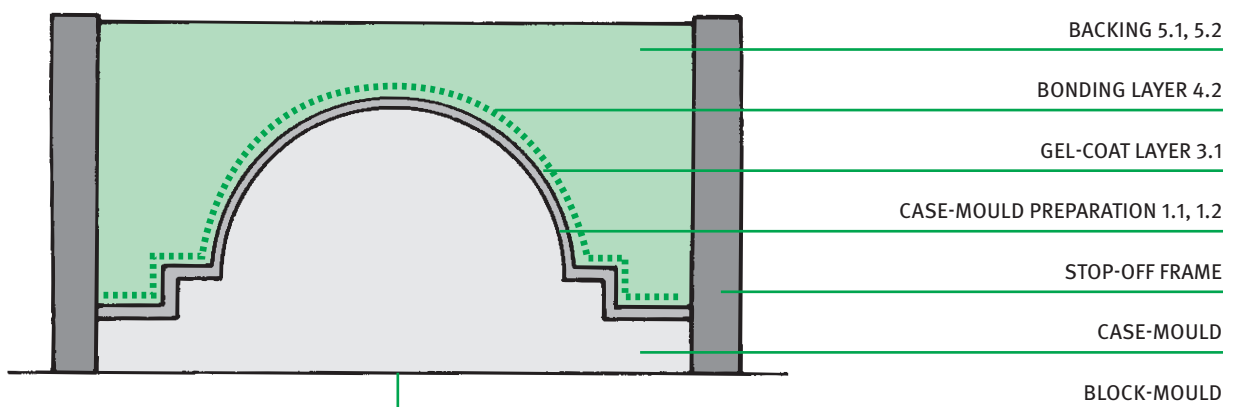
A bonding layer is applied between the Epoxy OH gel-coat layer and the backing (v. 4.2). The backing is stamped into the wet bonding layer.

Consumption:

Approx. 1.5 kg/m²
per mm layer thickness

Pot life:

Approx. 20-25 minutes (200 g)



Property

3.2 elastic

RECKLI PUR Elastomer thix

RECKLI PUR Elastomer thix black

Application

RECKLI PUR Elastomer thix and thix black are two-component putty resins. The technical difference is the viscosity. RECKLI PUR Elastomer thix results into a layer thickness of approx. 1 mm per operation (-thix black = 10 mm). A bonding layer (v. 4.1) is to be applied between front layer and backing (v. 5.)

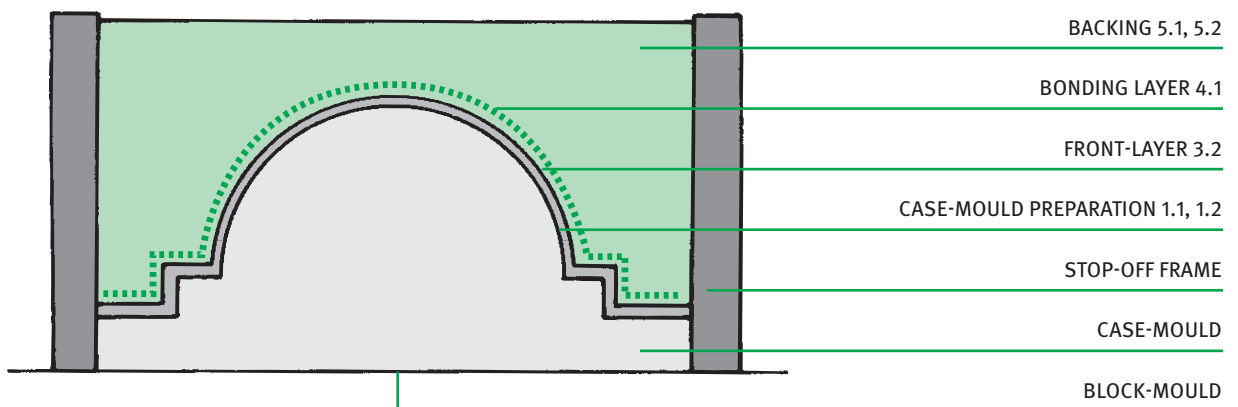
Consumption:

Approx. 1.4 kg/m²
per mm layer thickness

Pot life:

PUR Elastomer thix
approx. 8-10 minutes (200 g)

PUR Elastomer thix black
approx. 6-8 minutes (200 g)



4.0 BONDING LAYERS | PRIMER LAYER

Surface

4.1 flexible front-layer

RECKLI Construction Resin EP

RECKLI Epoxy PB

Working steps

The bonding layer's function is to form a strong and firm bond between the cured, elastic front-layer of RECKLI PUR Elastomer or RECKLI PUR Elastomer thix and the backing. The best bonding values are achieved, if glass fibres are added to and mixed with RECKLI Construction Resin EP or RECKLI Epoxy PB until there is a pasty consistency like sauerkraut. This pasty mass is manually applied onto the front-layer, whereas the hands are to be protected by rubber gloves. The backing material is stamped into this fresh bonding layer.

Layer thickness: 2-3 mm

Recipe

Construction Resin EP		
or Epoxy PB	80 %	1000 g/l
Glass fibres 3-5 mm	20 %	250 g/l

Consumption:

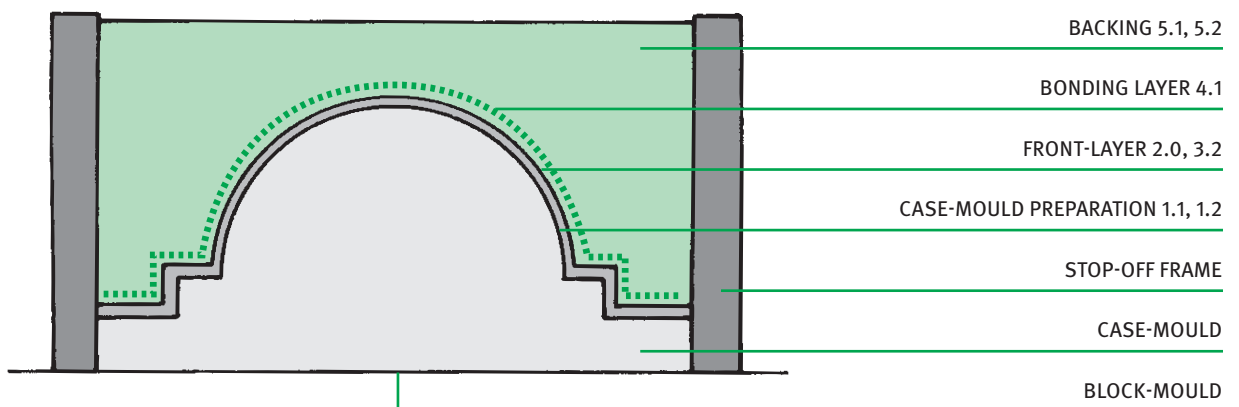
Approx. 1.5-2.0 kg resin per m²
for 2-3 mm layer thickness

Pot life:

Construction Resin EP
approx. 40-50 minutes (200 g)

Epoxy PB

approx. 30-35 minutes (200 g)



Surface

4.2 hard front-layer

RECKLI Construction Resin EP

RECKLI Epoxy PB

Working steps

In order to get a bonding layer for hard surfaces, a certain quantity of quartz powder depending on the powder's ingredients is added to RECKLI Construction Resin EP or RECKLI Epoxy PB until there is a pasty, consistency suitable for painting. This filled resin mass is painted onto the hard front-layer.

Layer thickness: 2-3 mm

The backing material is stamped into this fresh bonding layer.

Recipe

Construction Resin EP		
or Epoxy PB	65 %	1000 g/l
Quartz powder W 1	35 %	500 g/l

Consumption:

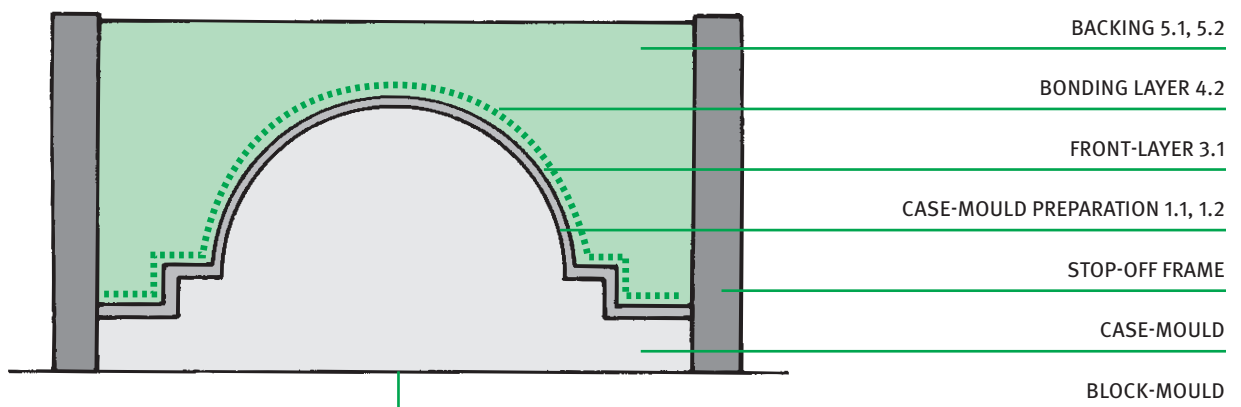
Approx. 1.5-2.0 kg resin per m²
for 2-3 mm layer thickness

Pot life:

Construction Resin EP
approx. 40-50 minutes (200 g)

Epoxy PB

approx. 30-35 minutes (200 g)



5.0 BACKINGS | EPOXY MORTAR

Properties

5.1 Temperature resistance 40 °C

RECKLI Construction Resin EP

5.2 Temperature resistance 90 °C

RECKLI Epoxy PB

Application

RECKLI Construction Resin EP and RECKLI Epoxy PB are binders based on epoxy resins for the manufacture of polymer concrete. For making backings with high exactness of measurements, the binder can be mixed with quartz sand with varying grain sizes from 0.2 mm. Light backings with a specific gravity of approx. 0.6 g/cm^3 can be produced by using RECKLI Filler L instead of quartz sand.

Pot life:

RECKLI Construction Resin EP
approx. 40-45 minutes (200 g)

RECKLI Epoxy PB
approx. 30-35 minutes (200 g)

Recipe quartz sand backing

Specific gravity approx. 1.8 g/cm^3

Quartz sand

0.2-1 mm 90-95 % $1.62\text{-}1.71 \text{ kg/l}$

Construction Resin EP

or Epoxy PB 10-5 % $0.18\text{-}0.09 \text{ kg/l}$

Recipe light-filler backing

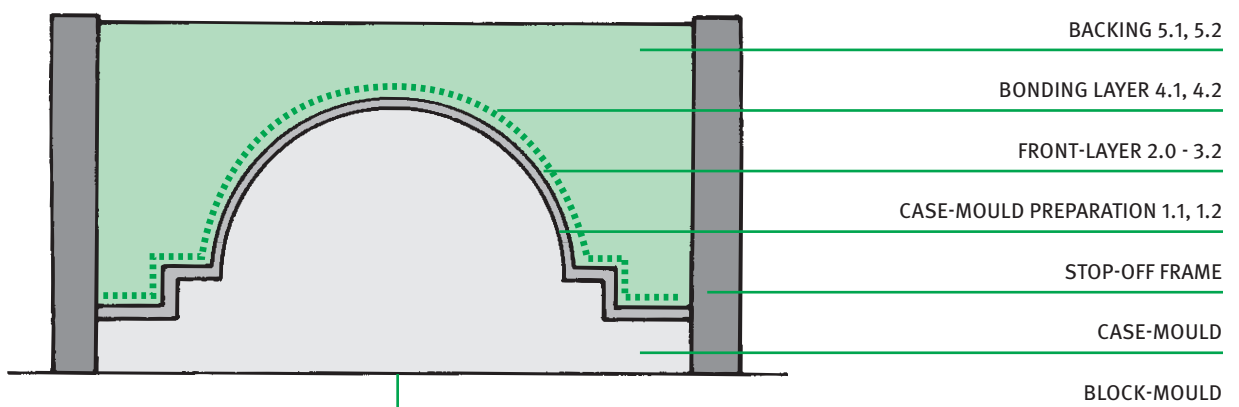
Specific gravity approx. 0.6 g/cm^3

Filler L 65 % 0.4 kg/l
(according to weight)

Construction Resin EP

or Epoxy PB 35 % 0.2 kg/l
(according to weight)

0.6 kg/l



6 SUPPORT MOULDS | GRP TECHNIQUE

Property

GRP Stamping Material

Temperature resistance 75 °C

RECKLI Epoxy Supporting Material

EP-F Type VB

Application

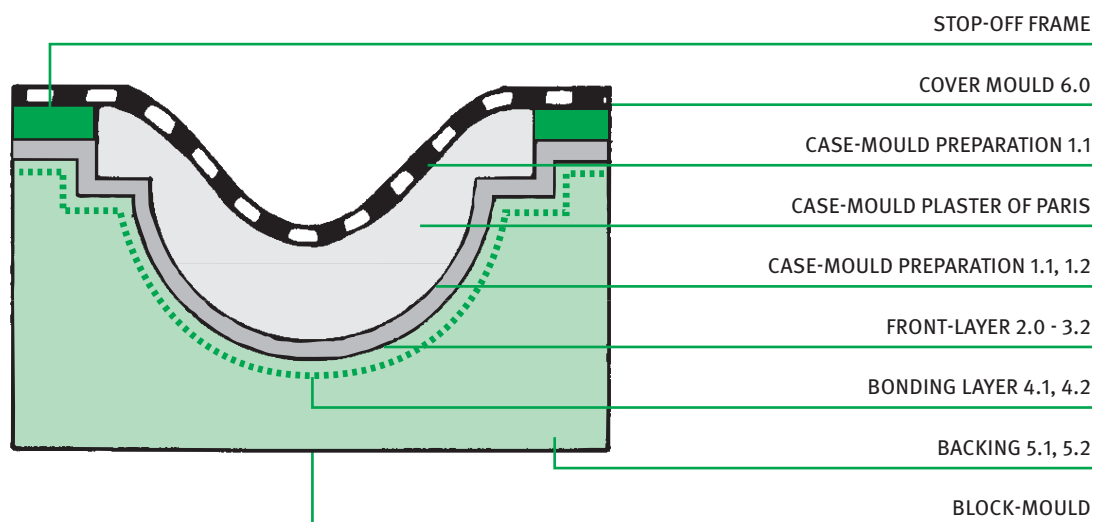
For manual production of thin-walled support moulds we suggest to firstly paint the fine layer RECKLI Epoxy OH onto the model surface before putting on the nearly dry stamping mass EP-F Type VB (consistency like sauerkraut). The closed fine layer smoothens the rough-fibred bearing layer EP-F Type VB on the surface. This makes releasing and cleaning easier and reduces the danger of injuries by protruding fibres. The front and the back side are to be smoothed by RECKLI Epoxy OH. RECKLI Support Mould EP-F Type VB is mixed manually (hands protected by rubber gloves) and applied in a layer thickness of 10 mm.

Consumption:

6 kg/m² (10 mm layer)

Pot life:

approx. 45-55 minutes (1000 g)



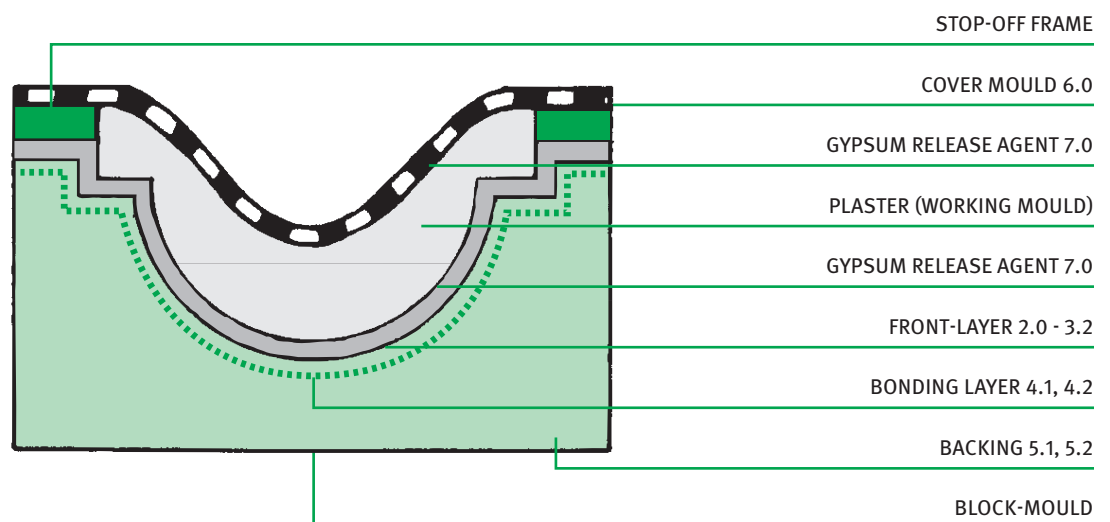
Property**Release Agent**

RECKLI Gypsum Release Agent GTM

Application

RECKLI Gypsum Release Agent GTM is a water-based, release agent with only little effects to the environment. It is used for release between block-mould surfaces made of RECKLI PUR Elastomers, RECKLI silicone rubbers or RECKLI epoxy resins and plaster. When this release agent is used, there is no swelling of the block-mould surfaces. The absorption capacity of the gypsum mould is hardly affected.

Consumption:

Approx. 50 g/m²

8 ADHESIVE FOR MOULD MAKING

Property

Low-tension adhesion

RECKLI Adhesive Paste EP

Adhesive paste free of solvents,
two components

Application

For low-tension adhesion of hard foam, timber, gypsum, ceramics, especially suitable for gluing of large-volume hard-foam blocks being used for computer-aided design (CAD) of models.

Consumption:

Approx. 800 g/m²

Pot life:

Approx. 40-50 minutes (200 g)

9 PRIMER FOR GYPSUM

Property

Bonding agent between gypsum and

RECKLI PUR Elastomer

RECKLI Construction Resin EP

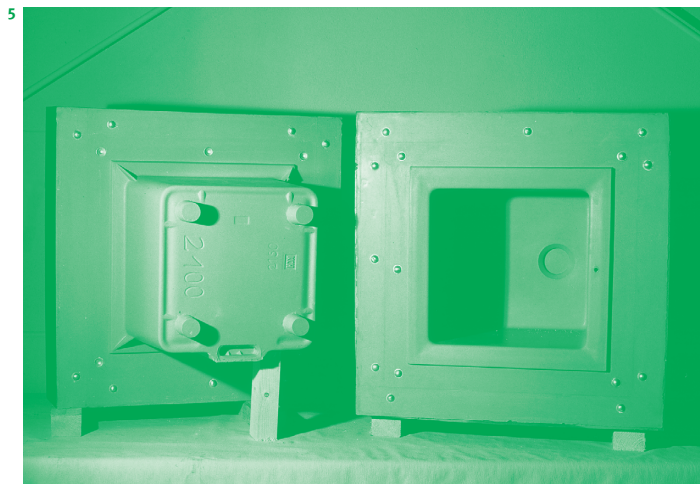
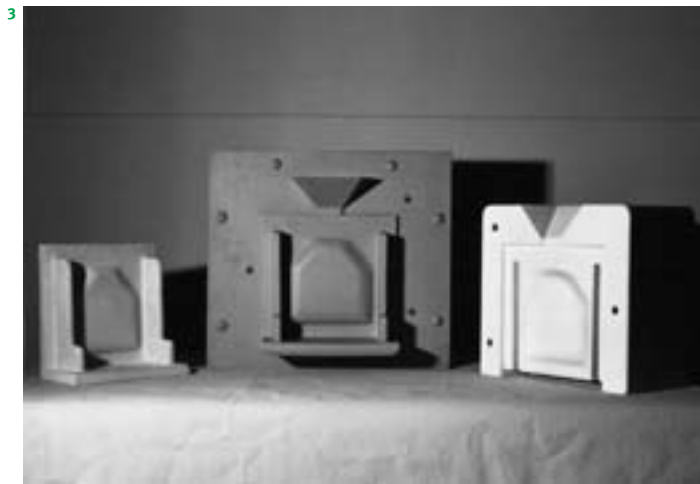
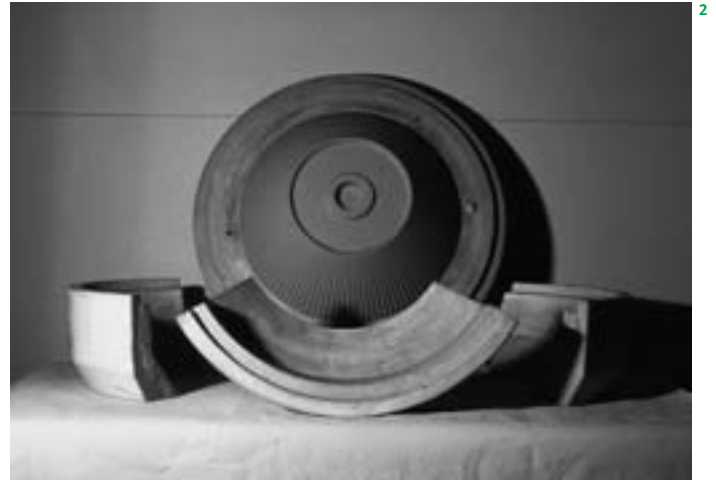
Application

Bonding agent between gypsum and a front cast of RECKLI PUR Elastomer.

A maximum drying time of 3-4 hours should not be exceeded. If it happens, a new application of primer is necessary; in this case the previous layer must be ground for better bonding.

Consumption:

Approx. 200 g/m²/painting



- 1 PORCELAIN INDUSTRY - VASE
- 2 UTILITY CERAMICS - LAMPSHADE
- 3+4 UTILITY CERAMICS - DUTCH TILE FOR STOVE
- 5 SANITARY CERAMICS - LABORATORY BASIN
- 6 SANITARY CERAMICS - WASH HAND BASIN
- 7 DECORATIVE CERAMICS - ELEPHANT

NOTES AS TO CONSUMPTION RATES AND POT LIFE

THE CONSUMPTION RATES WE STATED ARE DUE TO EXPERIENCE FROM PRACTICE. DEPENDING ON THE ACTUAL CASE OF APPLICATION THERE MAY BE HIGHER OR LOWER CONSUMPTION RATES THAN THOSE STATED BY US.

OUR INDICATIONS ON POT LIFE AND WORKABLE TIME ARE TO BE UNDERSTOOD AS GENERAL DIRECTIVES, TOO. THERE IS A STRONG DEPENDENCY BETWEEN POT LIFE AND THE TEMPERATURE OF THE MATERIAL / THE SURROUNDING AREA. THE QUANTITY OF THE MIXED MATERIAL IS ALSO AN IMPORTANT FACTOR.

TEMPERATURES OF 18 °C TO 20 °C ARE THE BASIS FOR OUR INDICATIONS. THE MIXED QUANTITY IS STATED BEHIND THE POT LIFE. HIGHER TEMPERATURES AND LARGER MIXING QUANTITIES REDUCE THE WORKABLE TIME PROPORTIONALLY TO A GREAT EXTENT. E.G. THE RECKLI PUR ELASTOMERS A 40 TO A 70 CANNOT BE Poured, WHEN THE MATERIAL TEMPERATURE IS HIGHER THAN 30 °C AND THE MIXED QUANTITY EXCEEDS 40 KG.

PLEASE OBSERVE THE RELEVANT TECHNICAL PAMPHLETS AND OUR APPLICATION DIRECTIONS.



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