



# MATERIALS FOR BLOCK-MOULDS







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# 1

# MODEL PREPARATION

## RECKLI MOULD WAX

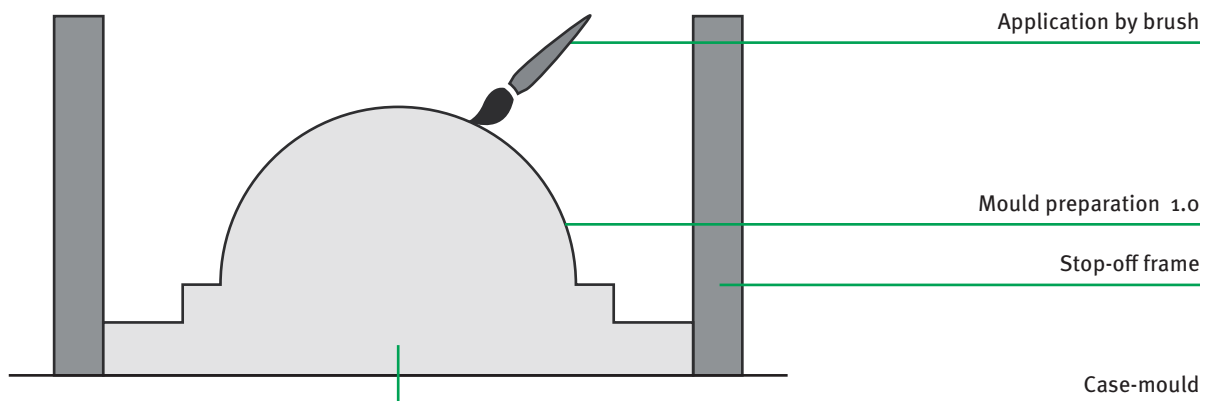
### Application

The release agent 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/m<sup>2</sup>

04



# 2

# FRONT LAYER POURING TECHNIQUE

## RECKLI PUR-ELASTOMER K

### Property

elastic

### Application

Preparation of the surface according to 1. RECKLI PUR Elastomer K is a two-component liquid resin curing nearly free of shrinkage. Hardener and base component are mixed thoroughly and poured on to the model surface (s. technical data sheet).

### Layer thickness depending on the case of application

10-20 mm

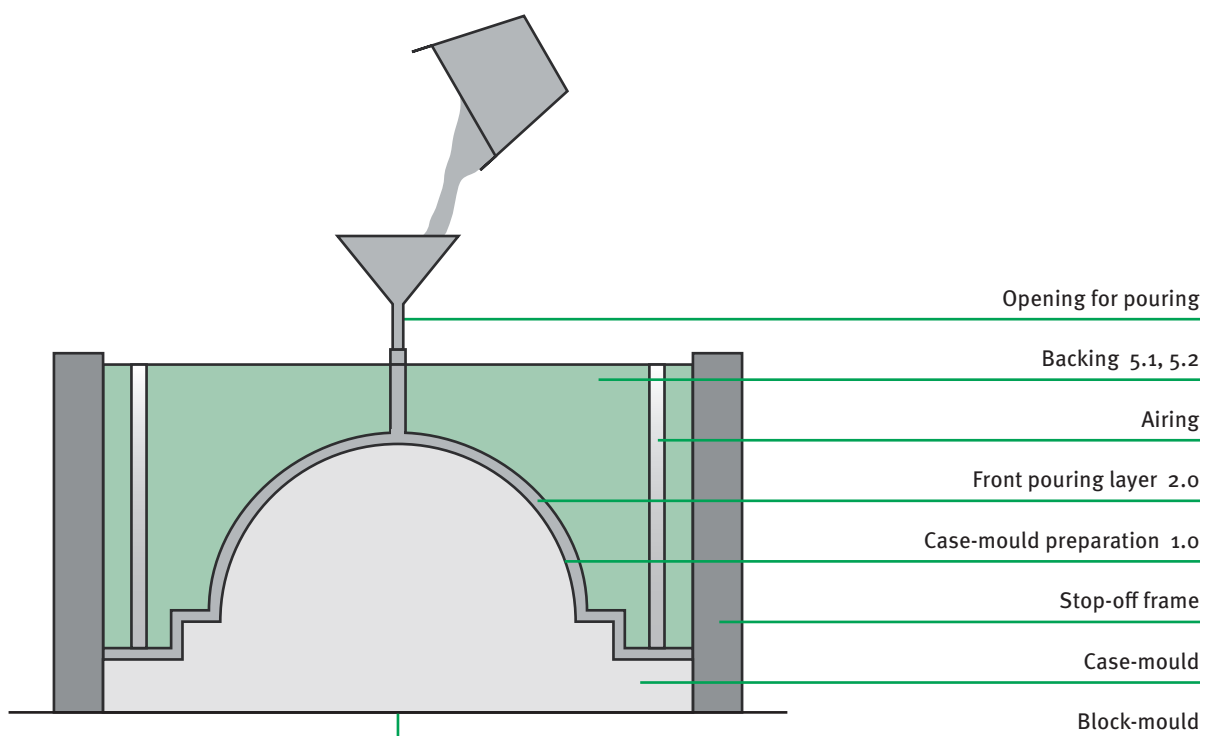
### Consumption

approx. 1.35 kg/l

### Pot life

approx. 15 minutes (200 g)

05



# 3

## FRONT LAYER BRUSHING TECHNIQUE

### 3.1

#### RECKLI EPOXY OH RECKLI EPOXY OH SCRATCH-RESISTANT

##### Property

hard

##### 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

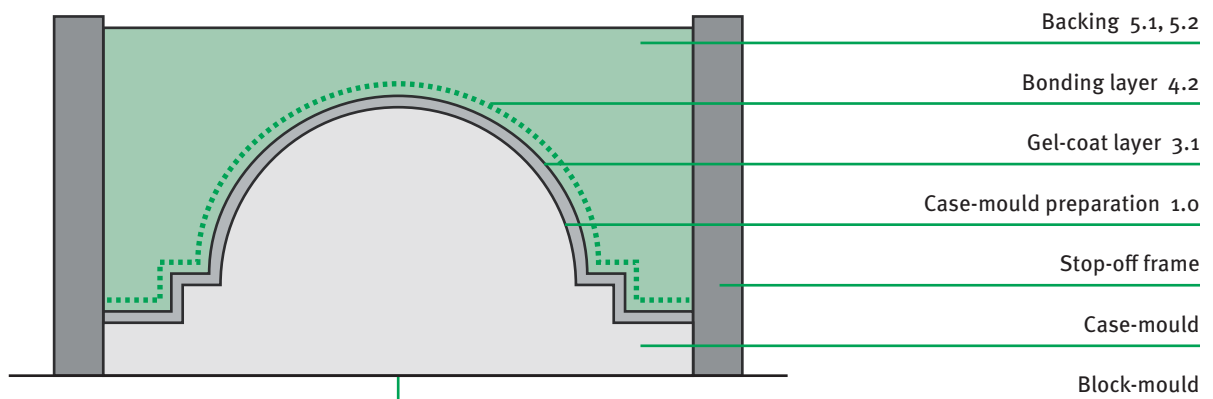
A bonding layer is applied between the Epoxy OH gel-coat layer and the backing (v. 4.2). The backing is stamped into the wet bonding layer (v. 5).

##### Consumption

approx. 1.5 kg/m<sup>2</sup> per mm layer thickness

##### Pot life

approx. 20-30 minutes (200 g)





## 3.2

### RECKLI PUR ELASTOMER THIX

#### Property

elastic

#### Application

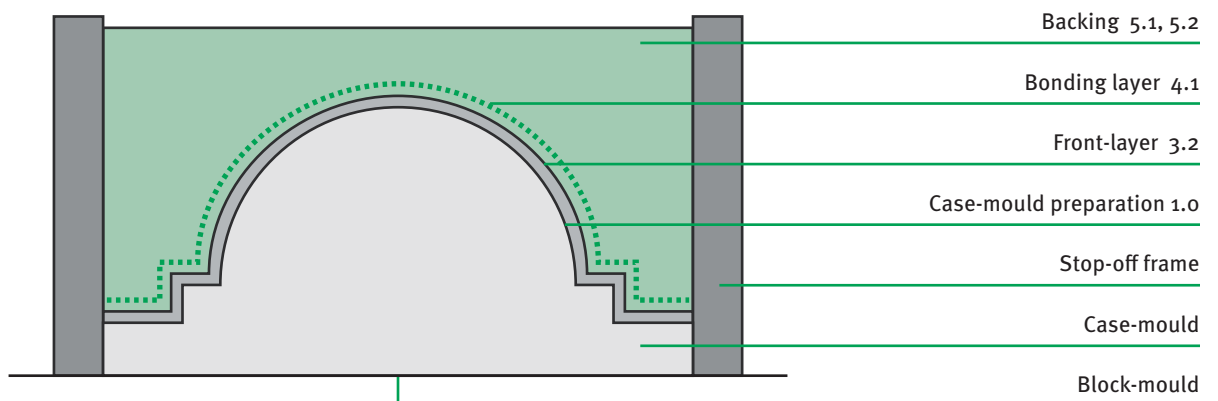
RECKLI PUR Elastomer thix is a two-component putty resins. RECKLI PUR Elastomer thix results into a layer thickness of approx. 1 mm per operation. A bonding layer (v. 4.1) is to be applied between frontlayer and backing (v. 5).

#### Consumption

approx. 1.4 kg/m<sup>2</sup> per mm layer thickness

#### Pot life

approx. 8-10 minutes (200 g)



# 4

## BONDING LAYERS PRIMER LAYER

### 4.1

#### RECKLI CONSTRUCTION RESIN EP RECKLI EPOXY PB

##### Surface

flexible front-layer

##### 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

approx. 2-3 mm

##### Recipe

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

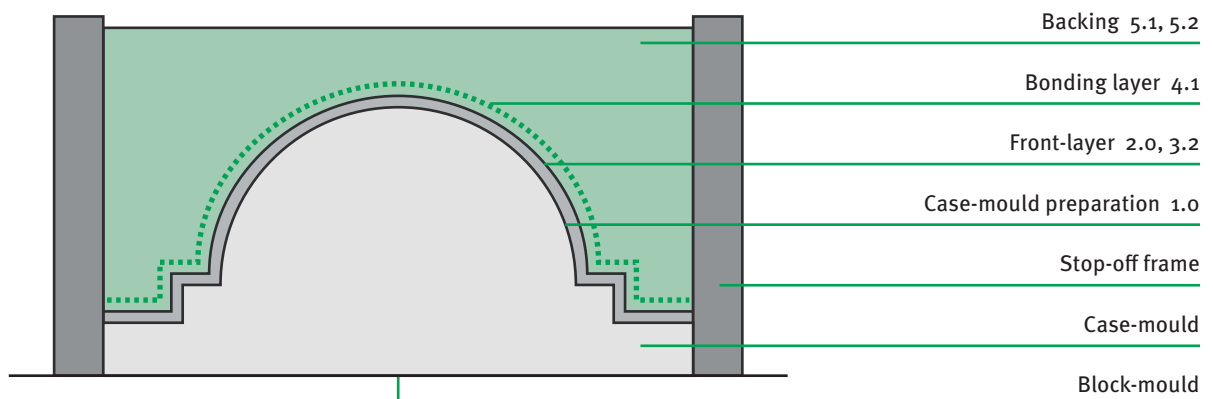
##### Consumption

approx. 1.5-2.0 kg resin per m<sup>2</sup> 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)



## 4.2

### RECKLI CONSTRUCTION RESIN EP RECKLI EPOXY PB

#### Surface

hard front-layer

#### 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

approx. 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 %	250 g/l

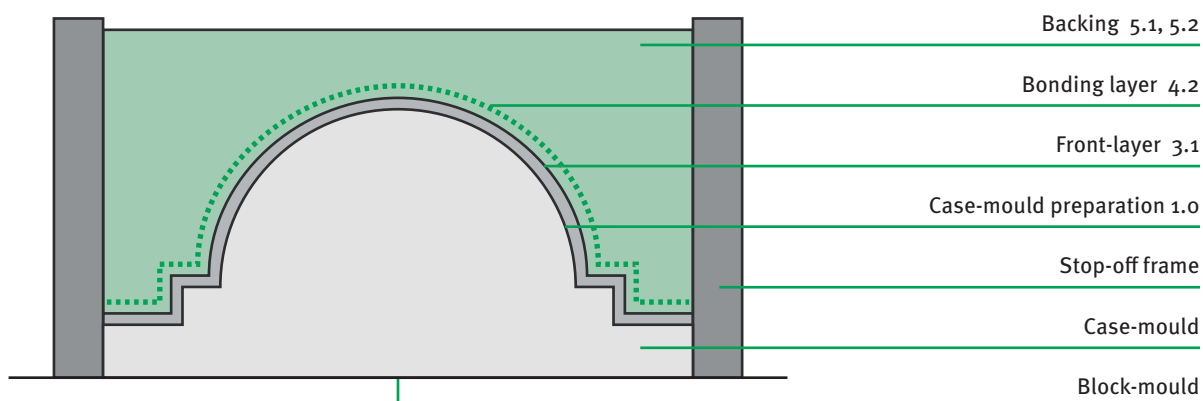
#### Consumption

approx. 1.5-2.0 kg resin per m<sup>2</sup> 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

# BACKINGS EPOXY MORTAR

## 5.1 RECKLI CONSTRUCTION RESIN EP

### Property

Temperature resistance 40 °C

### 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<sup>3</sup> can be produced by using RECKLI Filler L instead of quartz sand.

### Pot life

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

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

### Recipe quartz sand backing

Specific gravity approx. 1.8 g/cm<sup>3</sup>

Quartz sand 0.2-1 mm	90-95 %	1.62-1.71 kg/l
Construction Resin EP or Epoxy PB	10-15 %	0.18-0.09 kg/l

### Recipe light-filler backing

Specific gravity approx. 0.6 g/cm<sup>3</sup>

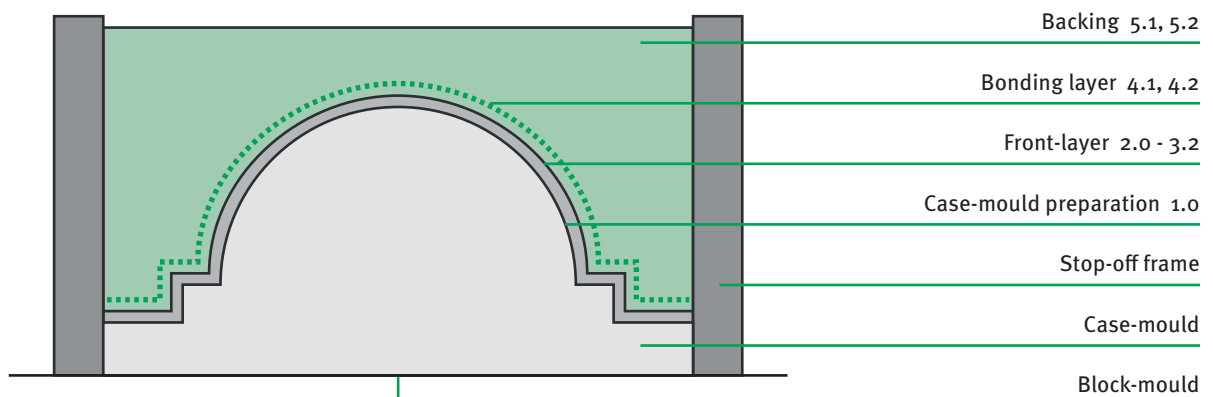
Filler L	65 % (according to weight)	0.4 kg/l
Construction Resin EP or Epoxy PB	35 % (according to weight)	0.2 kg/l
		<hr/>
		0.6 kg/l

## 5.2 RECKLI EPOXY PB

### Property

Temperature resistance 90 °C

10



# 6

## SUPPORT MOULDS GRP TECHNIQUE

### RECKLI EPOXY SUPPORTING MASS EP-F TYPE VB

#### Property

GRP Stamping Material, Temperature resistance 75 °C

#### 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 smoothened by RECKLI Epoxy OH.

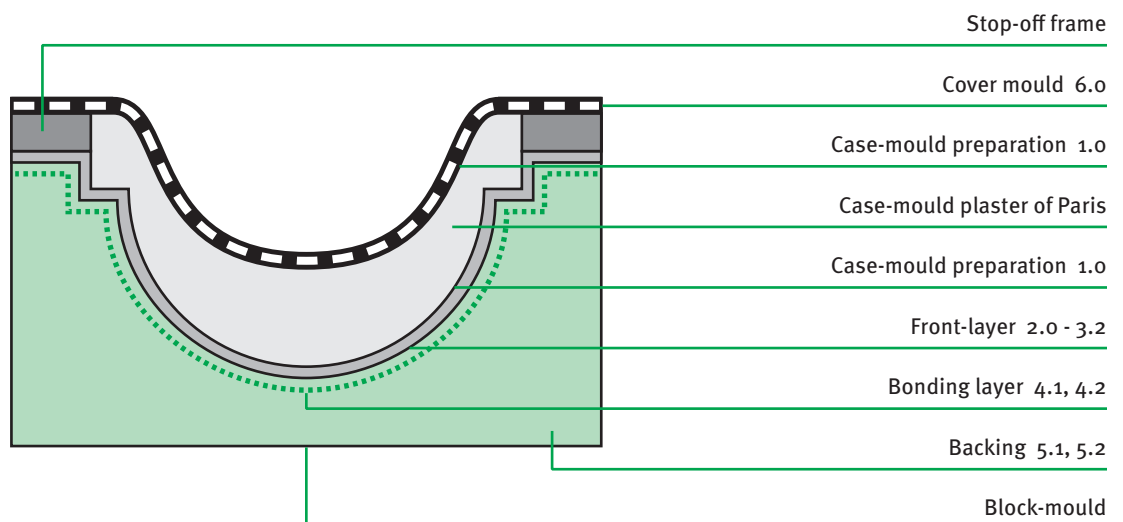
RECKLI Supporting Mass EP-F Type VB is mixed manually (hands protected by rubber gloves) and applied in a layer thickness of 10 mm.

#### Consumption

6.0 kg/m<sup>2</sup> (10 mm layer)

#### Pot life

approx. 45-55 minutes (1000 g)





# 7

# GYPSUM RELEASE AGENT

## RECKLI GYPSUM RELEASE AGENT GTM

### Property

Release Agent

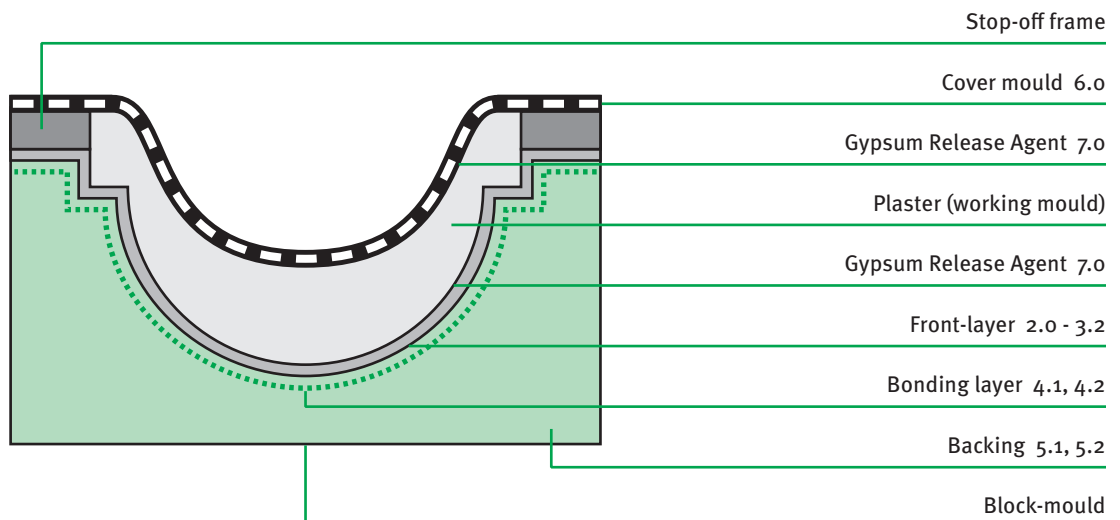
### Application

RECKLI Gypsum Release Agent GTM is a water-based, release agent with only little affects 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/m<sup>2</sup>

12



# 8

## ADHESIVE FOR MOULD MAKING

### RECKLI ADHESIVE PASTE EP

#### Property

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/m<sup>2</sup>

#### Pot life

approx. 40-50 minutes (200 g)

13

# 9

## PRIMER FOR GYPSUM

### RECKLI CONSTRUCTION RESIN EP

#### Property

Bonding agent between gypsum and RECKLI PUR Elastomer

#### 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/m<sup>2</sup>/painting

# PRODUCT OVERVIEW

PRODUCT	APPLICATION   CHARACTERISTICS	MIXING RATIO BY WEIGHT	SPECIFIC GRAVITY G/CM <sup>3</sup>	POT LIFE MIN (21 °C / 200 G)	EARLIEST STRIPPING H (21 °C)	VISCOSITY MPA.S	HARDNESS SHORE A	LINEAR SHRINKAGE %	TEAR RESISTANCE N/MM	VELONGATION AT BREAK %	HEAT RESISTANCE °C	COLOUR
<b>POLYURETHANE-ELASTOMERS, POURABLE</b>												
RECKLI PUR Elastomer K	solvent-free, rubbery-elastic, liquid, two-component polyurethane, cold-curing, almost shrinkage-free, after curing sliceable and grindable. Hardness: 60 Shore A, Color: grey	9:1	1.35	10-15	>24	Base 3000	60	nearly free of shrinkage	15	500	60	grey
<b>POLYURETHANE-ELASTOMERS, PUTTY RESINS</b>												
RECKLI PUR Elastomer thix	two-component compound, thixotropic, paste-like, especially suitable for moulding on vertical surfaces	9:1	1.40	8-10	approx. 5	pasty	55	nearly free of shrinkage	10	300	60	grey

## 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.

Please observe the relevant technical pamphlets and our application directions.

PRODUCT	APPLICATION   CHARACTERISTICS	MIXING RATIO BY WEIGHT	SPECIFIC GRAVITY G/CM <sup>3</sup>	POT LIFE MIN (21 °C / 200 G)	EARLIEST STRIPPING H (21 °C)	VISCOSITY MPa.S	HARDNESS GIVEN BY THE INDENTATION TEST N/MM <sup>2</sup> (14 D)	DIMENSIONAL STABILITY UNDER HEAT °C (ACC. TO MARTENS)	TEMPERATURE RESISTANCE 7 DAYS, 100 °C (RECIRCULATED AIR)
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### EPOXY RESINS, UNFILLED CASTING RESINS

<b>RECKLI Construction Resin EP</b>	universally suitable colourless two-component resin for nearly all applications in the building or concrete industry e.g. for coatings, as adhesive, bond course or binder for resin-based concrete, mortar or screed and compounds	2:1	1.10	40-50	24-48	1000-1200	70-75	40	resistant
<b>RECKLI Epoxy PB</b>	two component resin, transparent, very high resistance to thermal deformation, low-viscosity, high filling grades possible, also suitable as binder for polymer concrete	4:1	1.10	35	24-48	230	140	88-90	resistant

### EPOXY RESINS, PUTTY RESINS

<b>RECKLI Epoxy OH</b>	two component surface-modified coating resin, thixotropic, for model and mould making, good resistance to plastic deformation, impact toughness and abrasion resistance, exact reproduction of mould pattern details, colour white	7:1	1.50	20-30	24	-	120	60	resistant
<b>RECKLI Epoxy OH Scratch Proof</b>	similar to RECKLI Epoxy OH but especially scratch resistant by Nano-Technology, colour white	8:1	1.50	15-20	24	-	130	60	resistant
<b>RECKLI Adhesive Paste EP</b>	two component adhesive resin, slightly thixotropic, sticking of wood, card board, nature or artificial stone, several metals and several plastics, colour cream-white	4:1	0.80	60-70	24	-	25	40	resistant

### EPOXY RESINS, GLASS-FIBRE REINFORCED

<b>RECKLI Supporting Mass EP-F Type VB</b>	glass-fibre reinforced two component tamp composition, high resistance to thermal deformation, low specific gravity, for layers up to 30 mm, colour grey	7:1	0.60	45-55 (1000 g)	12-24	-	-	75	resistant
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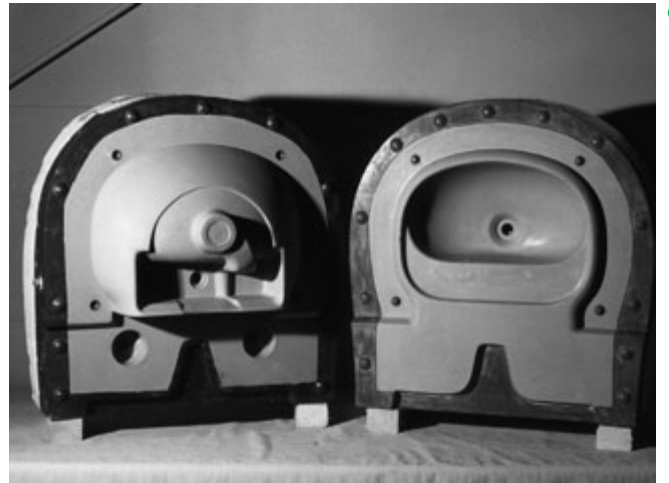
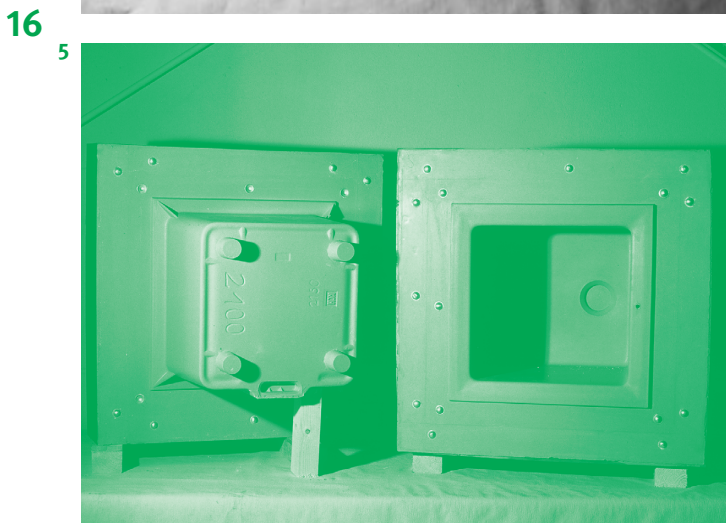
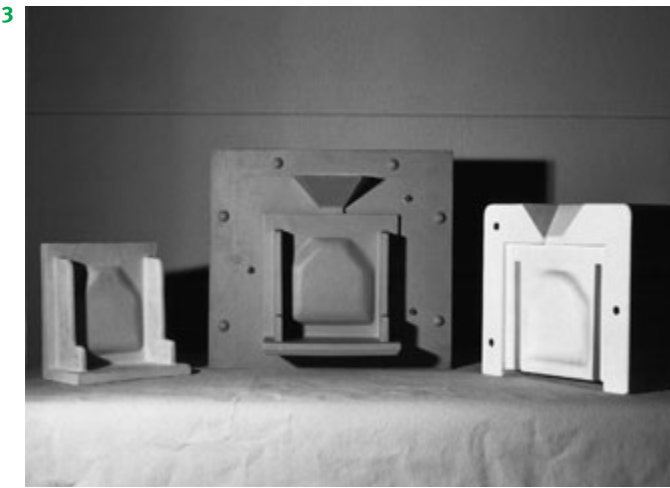
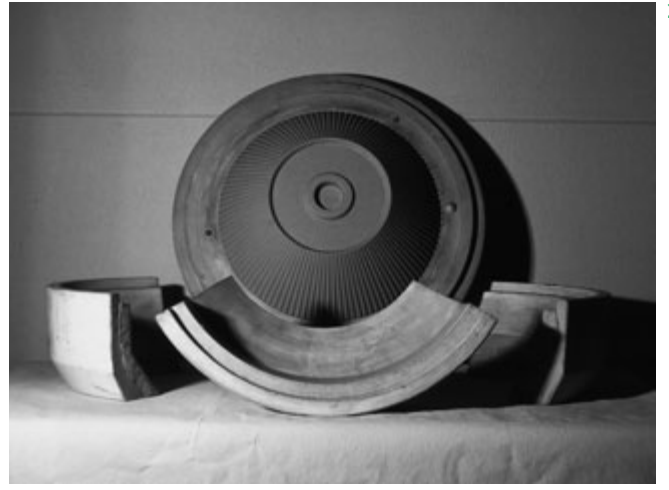
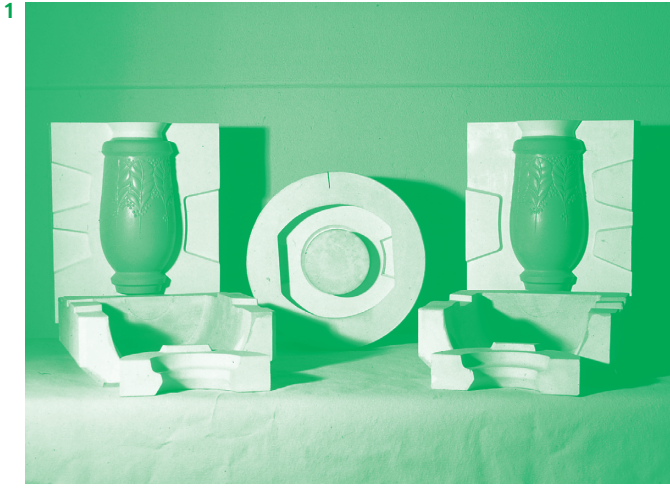
PRODUCT	APPLICATION   CHARACTERISTICS	CONSUMPTION
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### RELEASE AGENTS FOR MOULD MAKING

<b>RECKLI Mould Wax</b>	solvent containing precious hard wax for the safe separation when making casts of liquid resins on formliners or moulds made of RECKLI PUR Elastomers or RECKLI Epoxies	approx. 50-100 cm <sup>2</sup> /m <sup>2</sup>
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### RELEASE AGENTS FOR VARIOUS APPLICATIONS

<b>RECKLI Gypsum Release Agent GTM</b>	aqueous, non-polluting release agent for moulding gypsum from plastics like RECKLI-PUR Elastomers, -Silicones, -Epoxies, polyethylene or polyesters	approx. 50 g/m <sup>2</sup> on smooth surfaces, spray in fine coats, remove surplus from dips or cavities and pattern bottom
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- 1 Porcelain industry - Vase
- 2 Utility ceramics - Lampshade
- 3 Utility ceramics - Dutch tile for stove
- 4 Utility ceramics - Dutch tile for stove
- 5 Sanitary ceramics - Laboratory basin
- 6 Sanitary ceramics - Wash hand basin
- 7 Decorative ceramics - Elephant





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