

# GM 1914 S durability

## Technical Datasheet



### Unfilled polyurethane casting resin

#### Applications

climbing holds

#### Properties

highly abrasion resistant

unfilled

Pigmentable

short demoulding time

#### Processing data

| Product             |                   | Mixture              | Resin                        | Hardener                     |
|---------------------|-------------------|----------------------|------------------------------|------------------------------|
|                     |                   | GM 1914 S durability | GM 1914 S durability Komp. A | GM 1914 S durability Komp. B |
| Colour              |                   | ivory                | white                        | yellowish-transparent        |
| <b>Mixing ratio</b> | <b>p.b.w.</b>     |                      | 100                          | 80                           |
| Viscosity at 25 °C  | mPas              | 1400 ± 100           | 2500 ± 150                   | 20 ± 5                       |
| Density at 20 °C    | g/cm <sup>3</sup> | 1,14 ± 0,02          | 1,07 ± 0,02                  | 1,22 ± 0,02                  |
| Pot Life            | Seconds           | 160-200              |                              |                              |
| Demoulding time     | Minutes           | 10-15                |                              |                              |

#### Physical data

| Properties                      | Inspect. Requirements | Unit              | Value      |
|---------------------------------|-----------------------|-------------------|------------|
| Flexural strength               | EN ISO 178*           | MPa               | 90 ± 5     |
| Flexural modulus                | EN ISO 178*           | MPa               | 2200 ± 100 |
| Impact resistance (Charpy)      | EN ISO 179*           | kJ/m <sup>2</sup> | 50 ± 10    |
| Heat deflection temperature HDT | DIN EN ISO 75-1*      | °C                | 80 ± 5     |
| Shore hardness                  | DIN ISO 48-4*         | Shore D           | ~80        |

\* based on

#### Sales units (packages)

duranity 1914 S white comp. A ,5 kg drum

duranity 1914 S white comp. A, 25 kg hobbock

duranity 1914 S white comp. A ,200 kg drum

duranity 1914 S white comp. A, 1000 kg container

duranity 1914 yellow transparent comp. B ,4 kg can

duranity 1914 yellow transparent comp. B ,20 kg can

duranity 1914 yellow transparent comp. B, 200 kg drum

duranity 1914 yellow transparent, comp. B, 1200 kg container

#### additional products

Silikon 30 Base 20 kg

Silikon 30 Vernetzer 1 kg

### **Processing instructions**

Component A (Polyol) must be thoroughly stirred before processing.  
The material and processing temperature should be between 18 and 25°C.  
Low temperatures lead to brittleness and increased abrasion.

Important: The chemical reaction proceeds more slowly in cold areas, which shifts the reaction shrinkage to those areas especially the contact surface with the mold.  
Therefore, the silicone mold should be preheated to approximately  $\geq 25^{\circ}\text{C}$  to prevent shrinkage marks/blisters, particularly on holds with significantly varying wall thicknesses on the surface and hidden contours.

We recommend producing hollow-back holds.  
For dual texture holds/washers, the temperature should be  $>50^{\circ}\text{C}$  to achieve a high-quality surface.

The surface quality and durability of the holds are strongly influenced by the mold material used. In particular, slightly oily silicones produce high-quality surfaces.  
We recommend using ebalta Silicone 30.

### **General**

The casting resin GM 1914 durability is a whitish, unfilled polyurethane casting compound.

Depending on the type, the material is formulated for both manual and machine casting of climbing holds and is suitable for producing climbing holds in accordance with the requirements of EN 12572-3:2017.  
However, we point out that the manufacturer must individually verify each geometry.

The casting resin is easy to pour and accurately reproduces even fine, rough textures.

The material offers very high abrasion resistance for long-lasting holds, as well as good impact strength.

Component A can be colored by adding ebalta color pastes.

The material does not contain any of the following substances: Asbestos, lead, formaldehyde, coal tar oils, creosote, or polychlorinated biphenyls (PCBs).

The casting resin is free of plasticizers and contains approximately 40% raw materials from renewable sources.

The mechanical data were determined using test specimens that were post-cured for 8 hours at  $80^{\circ}\text{C}$ .  
Full chemical and mechanical loading should only occur after 7 days if the product was cured at room temperature ( $20\text{--}23^{\circ}\text{C}$ ).  
We recommend thermal post-curing for 8 hours at  $80^{\circ}\text{C}$ , as this significantly increases the abrasion resistance of the holds.

Adding fillers can further enhance abrasion resistance.

### **Storing**

Storage at room temperature  $18\text{--}25^{\circ}\text{C}$ .

Opened containers should be closed immediately after use and should be used up as soon as possible.

Please refer to the product labels for the shelf life of the material.

### **Safety measure**

Please follow the precaution instructions of the Government Safety Organisation of the chemical industry when working with this material.

Please refer to the respective safety data sheets

### **Waste Disposal**

The cured materials can be disposed of as household or commercial waste in consultation with the respective competent authority.

Uncured products must be properly disposed of in consultation with the competent authority.

For further questions, our product safety department is at your disposal.

## **Compliance & Legal**

The information and recommendations provided are based on careful evaluation and practical experience. They reflect the state of our knowledge at the time of provision. Updates may be made without notice.

The information is intended as general guidance and does not constitute a warranty of specific characteristics or properties of the product. Due to the wide range of potential applications and processing methods, not all individual use cases can be covered.

The product must be used in accordance with the applicable safety and usage instructions. No liability will be accepted for improper use or application outside the intended purpose.

Unless otherwise agreed, it is the responsibility of the user to independently assess the suitability of the product for the intended application and processing method.

The information provided does not release the user from the obligation to seek individual advice in cases of uncertainty regarding specific applications.

Statutory warranty rights remain unaffected.