duranity 1914 S EF

Technical Datasheet

Unfilled polyurethane casting resin

Applications

climbing holds

Properties

highly abrasion resistant
unfilled
Pigmentable
short demoulding time

Processing data

Product		**Mixture**	**Resin**	**Hardener**
		duranity 1914 S EF	duranity 1914 S Comp. A	duranity 1914 S Comp. B
Colour		ivory	white	yellowish-transparent
Mixing ratio	**p.b.w.**		100	80
Viscosity at 25 °C	mPas	1400 ± 100	2500 ± 150	20 ± 5
Density at 20 °C	g/cm³	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/m²	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 ≥25°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°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 duranity 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.

Full chemical and mechanical loading should only occur after 7 days if the product was cured at room temperature (20–23°C).
We recommend thermal post-curing for 8 hours at 80°C, as this significantly increases the abrasion resistance of the holds.

Adding fillers can further enhance abrasion resistance.

All specified characteristic values were determined after thermal conditioning at 80 °C for 8 hours.
The pot life was determined in accordance with internal test procedures using a 200 g sample at room temperature (approx. 23 °C).
The demolding times refer to demolding at room temperature.

Storing

Storage at room temperature 18-25 °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.