

Biresin® U1404 Elastomeric casting resin for mould making

Areas of Application

- Casting of flexible moulds for ceramic and gypsum processing
- Moulds for foaming and casting of mouldings with complex structure
- Manufacture of elastic, flexible mouldings and components

Product Benefits

- Insensitive to moisture
- Very soft, high elongation at break
- Good tensile strength and elasticity
- With component B **Biresin® U1404** for Shore hardness A 40
- With component B **Biresin® U1434** for Shore hardness A 55
- Very low shrinkage
- Dyeable with **Biresin® Farbpasten**

Description

- Basis Two component PUR system
- Component A **Biresin® U1404**, isocyanate prepolymer, colourless-transparent, unfilled
- Component B **Biresin® U1404**, amine, reddish-transparent, unfilled
- Component B **Biresin® U1434**, amine, beige, filled

Processing Data		Component A	Component B	
Individual components		Biresin® U1404	Biresin® U1404	Biresin® U1434
Viscosity, 25°C	mPa.s	~ 6,500	~ 300	~ 2,200
Density	g/ml	1.05	1.03	1.47
Mixing ratio A : B	in parts by weight	80	100	-
		50	-	100
Mixture				
Mixed viscosity, 25°C	mPa.s		~ 3,000	~ 3,700
Potlife, 500 g / RT	min		~ 25	~ 20
Demoulding time, RT	h		~ 24	> 16
Curing time, RT	d		3 - 5	~ 5

Physical Data (approx. values)

Biresin® U1404 (A)	with component B	Biresin® U1404	Biresin® U1434
Colour		reddish-transparent*	light beige*
Density	ISO 1183 g/cm³	1.05	1.3
Shore hardness	ISO 868 -	A 40	A 55
Tear strength	ISO 34 N/mm	7	9
Tensile strength	ISO 527 MPa	3 - 4	4
Elongation at break	ISO 527 %	> 600	> 600
Linear shrinkage	internal %	< 0.04	< 0.02

* dependent on raw materials the colour can differ without changing the mechanical properties

Packaging

Individual components	Biresin® U1404 (A)	200 kg; 20 kg; 8 kg; 0.8 kg net
	Biresin® U1404 (B)	10 kg; 1 kg net
	Biresin® U1434 (B)	16 kg; 1.6 kg net

Processing

- The material, processing and mould temperature must be from 18 to 25°C.
- The B component Biresin® U1434 must be mixed thoroughly before use.
- It is possible to add Biresin® Farbpaste to the B component before processing if required.
- Pay attention to dry conditions and dry mould surfaces while processing.
- The resin and hardener components are to be mixed thoroughly and poured immediately into previously released moulds (e.g. with Sika® Liquid Wax-815 resp. Sika® Pasty Wax-818; for more information see product data sheet).
- Porous surfaces (wood, gypsum) have to be well sealed before processing.

Storage

- Minimum shelf life is 12 month under room conditions (18 - 25°C), when stored in original un-opened containers.
- After prolonged storage at low temperature, crystallisation of components may occur. This is easily removed by warming up for a sufficient time to a maximum of 70°C. Allow to cool to room temperature before use.
- Containers must be closed tightly immediately after use to prevent moisture ingress. The residual material needs to be used up as soon as possible.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety related data.

Disposal considerations

Product Recommendations: Must be disposed of in a special waste disposal unit in accordance with the corresponding regulations.

Packaging Recommendations: Completely emptied packagings can be given for recycling. Packaging that cannot be cleaned should be disposed of as product waste.

Value Bases

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Legal Notice

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