

Biresin® U1419 Vacuum Casting resin

Areas of Application

- Manufacture of tough-hard and flexible prototype parts
- Manufacture of abrasion and impact stressed mouldings in production facility

Product Benefits

- Simulation of soft-PVC, PE and rubber
- Fast curing with good flowability
- Tough-hard and very flexible
- High tear strength
- High rebound elasticity
- Dyeable with **Biresin®-Farbpasten**

Description

- Basis Two-component-PUR-system
- Resin **Biresin® U1419**, polyol, yellowish-transparent, unfilled
- Hardener **Biresin® U1419**, MDI-based isocyanate, amber, unfilled

Processing Data		Resin	Hardener
Individual Components		Biresin® U1419	Biresin® U1419
Viscosity, 25°C	mPas	approx. 3,500	approx. 180
Density	g/cm³	1.06	1.23
Mixing ratio resin to hardener	in parts by weight	100	16
		Mixture	
Mixed viscosity, 25°C	mPas	approx. 2,700	
Potlife, 500 g, RT	min	6 - 7	
Demoulding time at 70°C mould temperature	min	> 60	
Curing time, RT	d	1 - 3	

Physical Data (approx.-values)

Biresin® U1419 Resin			with hardener			Biresin® U1419		
Colour						yellowish-transparent*		
Density	ISO 1183	g/cm³				1,1		
Shore hardness	ISO 868	-				A 98 (D 54)		
Tensile strength	ISO 527	MPa				25		
Elongation at break	ISO 527	%				375		
Tear strength	ISO 34	N/mm				68		
Linear shrinkage, test specimen: 500 mm x 40 mm x 10 mm	internal	%				0.05		
Abrasion resistance	ISO 4649 A	mm³				90		

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

Packaging

Working packages	Biresin® U1419 A+B Pack	6 x 1.0 kg net resin + 6 x 0.16 kg net hardener in a box
Individual components	Biresin® U1419 resin Biresin® U1419 hardener	10 kg net 1.6 kg net

Processing

- The material temperature must be 18 - 25°C.
- The resin component must be stirred thoroughly before use.
- Both components must be under vacuum for several minutes before mixing in right mixing ratio and poured into preheated moulds (70°C).
- After complete filling of the moulds, vacuum is switched off and moulds are placed in an oven at 70°C for curing until demoulding.

Storage

- Minimum shelf life is 6 month under room condition (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 regarding transportation, handling, storage and disposal of chemical products, users should refer to the actual Material Safety Data Sheets 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.

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