

Biresin® CR170 with Biresin® CH135-4 hardener

Composite resin system

Areas of Application

- For injection processing
- Specially for applications when higher temperature resistance is required

Product Benefits

- Short cycle times for RTM processing
- Glass transition temperatures up to 153°C dependent on curing conditions

Description

- Basis Two-component-epoxy-system
- Resin (A) **Biresin® CR170**, epoxy resin, colourless to yellowish, unfilled
- Hardener (B) **Biresin® CH135-4**, amine, colourless, unfilled

Physical Data		Resin (A)	Hardener (B)
Individual Components		Biresin® CR170	Biresin® CH135-4
Viscosity, 25°C	mPas	13,000	< 10
Density, 25°C	g/ml	1.14	0.92
Mixing ratio	in parts by weight	100	24
		Mixture	
Potlife, 100 g / RT, approx. values	min	140	
Mixed viscosity, RT, approx. values	mPas	2,000	

Mechanical Data of neat resin specimen (approx. values after 4 h / 140°C)

Biresin® CR170 resin (A) with hardener (B)			Biresin® CH135-4
Shore hardness	ISO 868	-	D 86
Flexural E-Modulus	ISO 178	MPa	2,850
Tensile E-Modulus	ISO 527	MPa	2,750
Flexural strength	ISO 178	MPa	135
Tensile strength	ISO 527	MPa	91
Elongation at break	ISO 527	%	6.0
Impact resistance	ISO 179	kJ/m²	24

Processing

- The temperature of the resin system should be 30 - 40°C to achieve good mixing of components.
- The processing temperature of the mould should be between 60 and 120°C.
- To clean brushes or tools immediately Sika Reinigungsmittel 5 is recommended.
- Additional information are available in "Processing Instructions for Composite Resins".

Packaging

Individual components	Biresin® CR170 resin (A)	200 kg; 30 kg; 10 kg net
	Biresin® CH135-4 hardener (B)	850 kg; 180 kg; 26 kg, 3 kg net

Thermal Data of neat resin specimen (approx. values after 4 h / 140°C)				
Biresin® CR170 resin (A)			with hardener (B)	Biresin® CH135-4
Heat distortion temperature	ISO 75B	°C		139
	ISO 75C	°C		125
Glass transition temperature	ISO 11357	°C		143

Storage

- Minimum shelf life of Biresin® CR170 resin (A) is 24 month and of Biresin® CH135-4 hardener (B) is 12 month under room conditions (18 - 25°C), when stored in original unopened containers.
- After prolonged storage crystallisation of resin may occur. This is easily removed by warming up for a sufficient time to 60-70°C.
- 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.

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