



SikaBiresin® CIM 80

SikaBiresin® CIM 80 is a cost-effective material co-developed with Sika for the Massivit 10000 series. It provides high-speed production for room-temperature tooling applications, as well as masters, jigs and fixtures.

Key Advantages:

- Room temperature curing - save time and costs
- Good vacuum retention
- High-dimensional accuracy
- Good workability

Applications

- Room temperature layups tools
- Masters
- Jigs and fixtures

Character	Method	Metric	Imperial
Mechanical Properties			
Izod Impact (notched)	ISO 179	6 [kJ/m ²]	2.8 [ft-lb/in ²]
Linear shrinkage	Internal test	0.03 - 0.05%	0.03 - 0.05%
Shore Hardness	ASTM D2240	85D	85D
Tensile Properties			
Stress at Break	ASTM D638	26.10 ± 0.72 [MPa]	3,785 ± 104 [psi]
Elongation at Break	ASTM D638	2%	2%
Elasticity Modulus	ASTM D638	1.28 ± 0.04 [GPa]	185,648 ± 5,801 [psi]
Flexural Properties			
Stress at Break	ASTM D790	46.76 ± 5.57 [MPa]	6,782 ± 808 [psi]
Elasticity Modulus	ASTM D790	4.70 ± 0.77 [GPa]	681,677 ± 111,679 [psi]
Compression			
Compressive strength	ISO 604	110 [MPa]	15,950 psi
Thermal Properties			
HDT	ASTM D648	80 [°C] *	176 [°F]

All measurements were done on lab specimens of cured material, followed by post - cure process. The specifications stated above refer to the Beta aversion and results were derived from internal lab tests. The material above is under R&D development.

Physical properties

Character	Tested value
Component A viscosity	20,000 mPa.s
Component B viscosity	200 mPa.s
Mix Ratio by Weight	100A:25B
Mix Viscosity	3,000 cP
Specific Gravity	1.7 g/cm ³
Pot Life @RT (200gr)	40 min
Demoulding time@RT	~ 16 - 24 h
Mixture Color	Beige

Precautionary Statement

Massivit maintains up-to-date Material Safety Data Sheets (MSDS) on all of its products. These sheets contain pertinent information that you may need to protect your employees and customers against any known health or safety hazards associated with our products. Users should review the latest MSDS to determine possible health hazards and appropriate precautions to implement prior to using this material.

Storage

The material base -A and hardener -B should be stored in a dry place in the sealed original container at temperatures between 18-25°C. Under these storage conditions, the shelf life is one year. The product should not be exposed to direct sunlight. Containers must be closed tightly immediately after use to prevent moisture ingress.

Post-Curing Option

SikaBiresin® CIM 80 is designed to fully cure during the heat application in the printing process. Generally, it does not require post-curing. However, an exception to this rule applies to small parts that may not absorb sufficient heat while printing. For parts smaller than 30 cm (12 inches), a brief post-cure session may be necessary to enhance mechanical properties. Additionally, post-curing is mandatory when using SikaBiresin® CIM 80 for tasks outside the printer, such as assembling parts or backfilling. If post-curing is needed, it should be conducted for 4 to 8 hours at 70°C. Once cured, SikaBiresin® CIM 80 specimens can be milled, polished, or coated