

Technical data sheet

Curing agent (Orthodontic models)

Biresin® G27 white



Manufacturer

SIKA Deutschland GmbH
Kornwestheimer Str. 103-107
70439 Stuttgart
Germany

SIKA GmbH is certified according to:

- ISO 9001
- ISO 14001

■ Description

Hardener for quick-acting resin *Biresin® G27 white*

Cast resin used: Biresin® G28 - see data sheet

■ Description

Biresin® G27 white may be used as hardener for the unfilled fast cast resin Biresin® G28. The white hardener G27 consists of MDI-based isocyanate and is unfilled.

The most important features are:

- When using Hardener Biresin® G27 white, even higher flow properties and lighter-coloured moulded parts can be produced than with other comparable hardeners from the SIKA range

■ Indication

The hardener is used for casting models, core moulds, negatives, control casts and sample parts of medium to large sizes. **The main indication at CADstar is the production of orthodontic models.** To do this, blanks are poured into prefabricated moulds. A

model is created by taking an impression of the patient's teeth. Subsequently, this dental cast is scanned. As an alternative, oral scanners can be used. This omits creating a model for scanning purposes. The scanning data are prepared, and finally the casting blanks are processed in the milling machine to arrive at the finished orthodontic model.

■ Processing

- For processing instructions, refer to the CADstar data sheet *Biresin® G28 Resin*
- Curing is achieved by cross-linking the individual components and is usually associated with a volume shrinkage. There is also the term referred to as reaction resin. For some resins, the curing reaction is exothermic, meaning, heat is released.

See product data sheet - *SIKA Biresin® G28 Resin*

<http://deaddconst01.webdms.sika.com/fileshow.do?documentID=1542>

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■ Potential dangers

When cured, resins and hardeners **do not present a health hazard**.

However, as an individual product, the hardener is classified as dangerous according to Directive 1999/45/EC and its Annexes.

The isocyanate contained in the product may cause irritation when inhaled. Irritating to eyes, respiratory system and skin. May cause sensitisation when inhaling and coming into contact with skin.

Refer to material safety data sheet - SIKA Biresin® G27

Hardener, white

<http://deaddconst01.webdms.sika.com/fileshow.do?documentID=3057>

■ Processing data

Hardening agent	Biresin® G27 white
Viscosity, 25°C [mPa * s]	~ 13
Density ρ [g/ml]	1.13

■ Physical data (guidelines)

		Biresin® G28 Resin with hardener	Biresin® G27 white
Colour			White
Density ρ	ISO 1183	[g/cm³]	1.1
Shore hardness	ISO 868	—	D 68
E-module	ISO 178	[MPa]	900
Flex resistance β_B	ISO 178	[MPa]	35
Tear strength β_Z	ISO 527	[MPa]	19
Elongation at rupture Δ	ISO 527	[%]	18
Impact strength W	ISO 179	[kJ/m²]	40
Dimensional stability under heat	ISO 75B	[°C]	75
Linear shrinkage		[%]	0.28