

SEMICOSIL[®] 823 UV A



Room Temperature Curing Silicone Rubber (RTV-2)

SEMICOSIL[®] 823 UV is a non-slump silicone adhesive that is cured by UV conditions with unique cure behavior for automotives.

This is designated for oven-free processing or wet bonding during processing with fast adhesion built-up at oven processing.

Properties

- Primerless adhesion to many substrates
- Self-curable after UV activation
- Fast curing and adhesion built-up at the minimum energy input
- Thixotropic for non-slump
- Long pot-life of the A+B mixed

Specific features

- Addition Curing
- Non-slump
- Two-component
- UV curing

Technical data

Properties Uncured

Property	Condition	Value	Method
Viscosity of mix at 0,5/s	25 °C	340,000 ± 50,000 mPa.s	-
Viscosity of mix at 25/s	25 °C	31,500 ± 5,000 mPa.s	-

These figures are only intended as a guide and should not be used in preparing specifications.

Properties Uncured

Property	Condition	A	B	Method
Viscosity at 25/s	25 °C	58,000 ± 5,000 mPa.s	1,000 ± 100 mPa.s	-

These figures are only intended as a guide and should not be used in preparing specifications.

Properties Catalyzed A+B

Part B : ELASTOSIL CAT UV as A:B=10:1

Property	Condition	Value	Method
Color	-	Grayish translucent	-
Density	-	1.10 - 1.13 g/cm ³	-
Mix ratio ⁽¹⁾	-	10 : 1	A : B
Pot life after mixing ⁽²⁾	25 °C	≥ 24 h	DIN EN ISO 3219
Tack free time after UV ⁽³⁾	-	≥ 1 min	-
Hardness Shore A	-	38	DIN 53505 A
Tensile strength	-	≥ 2 N/mm ²	-
Elongation at break	-	≥ 600 %	-
Lap shear strength with glass ⁽⁴⁾	-	≥ 2 N/mm ²	-
Lap shear strength with metals ⁽⁵⁾	-	≥ 2 N/mm ²	-
Lap shear strength with plastics ⁽⁶⁾	-	≥ 2 N/mm ²	-
Open time(Wet bonding limit) after UV activation ⁽⁷⁾	-	≤ 60 min	-
T50 at RT after UV ⁽⁸⁾	-	≤ 35 min	-
T90 at RT after UV	-	≤ 65 min	-

¹A=SEMICOSIL 823 A, B=ELASTOSIL CAT UV

²Time to 25% viscosity up at 25°C under dark place

³Standard UV energy : 3,000 mJ/cm² (365nm LED UV)

⁴Glass/Glass, T=300µm

⁵Al/Glass, Mg/Glass, T=300µm

⁶Polycarbonate/Glass, T=300µm

⁷UV : 3,000 mJ/cm² (365nm LED UV)

⁸Standard UV : 3,000 mJ/cm² (365nm LED UV)

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All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be downloaded via WACKER web site <http://www.wacker.com>.

Applications

- Adhesives
- Automotive Electronics
- Automotive, Aerospace & Railway

- Bonding & Sealing
- Displays & Optical Bonding
- E-Mobility
- Electrics & Electronics
- Electronics
- Industrial Adhesives

Application details

- Assembly glue for displays
- Bonding material or sealing agent in electronics, automotive, and other industrial applications

Processing

Processing

Surface preparation

All surfaces must be clean and free of contaminants that will inhibit the cure of SEMICOSIL® 823 UV A and ELASTOSIL® Cat UV.

Examples of inhibiting contaminants are sulfur-containing materials, plasticizers, urethanes, amine-containing materials, and organometallic compounds – especially organotin compounds. If a substrate's ability to inhibit cure is unknown, a small-scale test should be run to determine compatibility.

Mixing ratio

Part A (SEMICOSIL® 823 UV A) : Part B (Elastosil® Cat UV) = 10 : 1

Curing

Curing speed can be adjusted by UV power and time. Also, heat can accelerate the curing process.

We recommend running preliminary tests to optimize conditions for the particular application. Comprehensive processing instructions are given in below;

- Recommended Lamp Type: UV-A, Mercury, 365 nm LED
- For the Normal process, Metal Halid is recommended
- For the Hybrid process (UV first, then laminate); For Hybrid process; UV energy should be controlled depending on the open time from UV activation to Lamination

If the applied lamp is a 365nm LED lamp, the higher UV irradiance would be better (ex. 2,000 mW/cm²).

Tack-free time can be increased or decreased depending on the applied irradiance of the energy source.

Packaging and storage

Packaging

1KG BOTTLE PE

18KG HOBBOCK PE

Storage

SEMICOSIL® 823 UV A and ELASTOSIL® Cat UV should be stored between 5 °C and 30 °C and below 60%RH in the tightly closed original container.

The 'Best use before end' date of each batch appears on the product label.

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety notes

SEMICOSIL® 823 UV, being an addition-curing silicone rubber contains neither toxic nor aggressive substances which might require special handling precautions. General industrial hygiene regulations should be observed. Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from Wacker subsidiaries.

QR Code SEMICOSIL® 823 UV A



For technical, quality or product safety questions, please contact:

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