

# SEMICOSIL<sup>®</sup> 827 UV A



## Room Temperature Curing Silicone Rubber (RTV-2)

SEMICOSIL<sup>®</sup> 827 UV is specially designed for an assembly glue or side-sealing which requires high adhesion. This is a 2-component elastomer as SEMICOSIL<sup>®</sup> 827 UV A and ELASTOSIL<sup>®</sup> CAT UV with 10:1 mixing ratio and a non-slump silicone adhesive that is cured by UV conditions with unique cure behavior for automotives. This is designed for oven-free processing or wet bonding during processing with fast adhesion built-up at oven processing.

### Properties

- Extremely high adhesion to various substrates such as metals, glass
- Primerless adhesion to many substrates
- Fast curing and adhesion built-up at the minimum energy input
- Thixotropic for non-slump with nozzle dispensability
- Waterproof property with low surface energy and hydrophobic structure

### 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	325,000 ± 30,000 mPa.s	-
Viscosity of mix at 25/s	25 °C	34,000 ± 3,000 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 of A at 25/s	25 °C	58,000 ± 5,000 mPa.s	1,000 ± 100 mPa.	-

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### Properties Catalyzed A+B

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

Property	Condition	Value	Method
Pot Life <sup>(1)</sup>	25 °C	≥ 24 h	DIN EN ISO 3219
Tack free time(wet bonding limit) after 1,500~2, 500mJ/cm2 365nm LED	25 °C	≤ 15 s	-
Hardness Shore A	-	40 - 50	ASTM D 2240 Type A
Tensile strength	-	≥ 7 mPa	ISO 37 type 1
Elongation at break	-	≥ 800 %	ISO 37
Lap shear strength to glass	-	≥ 8 MPa	-
T90 after UV at RT <sup>(2)</sup>	25 °C	≤ 25 min	-

<sup>1</sup>Time to double viscosity up

<sup>2</sup>T90 : Time to 90% cure degree up

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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
- Side-sealing agent for smart-window applications
- 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® 827 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® 827 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); 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/cm<sup>2</sup>).

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® 827 UV A and ELASTOSIL® CAT UV as part B should be stored under 25°C/50%RH in the tightly closed original container.

### \* Shelf life

The 'Best use before end' date (Shelf life) 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.

SEMICOSIL® 827 UV A: 12 month

ELASTOSIL® CAT UV: 6 month

## Safety notes

SEMICOSIL® 827 UV, 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® 827 UV A



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

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