

LUMISIL[®] 405 IM UV A/B



Room Temperature Curing Silicone Rubber (RTV-2)

LUMISIL[®] 405 IM UV is 2-part transparent silicone elastomer that cured by UV condition and specially designed for optical molding with excellent optical stability in Mini-LED application

Properties

- Middle viscosity for various dispensing availability
- Excellent Optical Stability under Harsh condition
- Excellent Colorless Clear Transparency
- No oxygen inhibition
- Low tackiness for easy alignment
- Low shrinkage
- High Adhesion to various substrates

Specific features

- Addition Curing
- Flowable
- No chemical shrinkage
- Two-component
- UV curing

Technical data

Properties Uncured

Property	Condition	A	B	Method
Color	-	Clear	Clear	-
Density	-	0.97 g/cm ³	0.97 g/cm ³	-
Viscosity	-	5,000 ± 1,000 mPa.s	6,000 ± 1,000 mPa.s	ISO 3219

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

Properties Catalyzed A+B

Property	Condition	Value	Method
Viscosity of mix	-	5,500 ± 1,000 mPa.s	ISO 3219
Platinum catalyst in component	-	B	-
Mix ratio	-	1 : 1	A : B
Pot life	23 °C	> 24 h	-
Gel time after 3,000 mJ/cm ² UV exposure (365nm LED)	-	40 - 80 s	-

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

Properties Cured

Property	Condition	Value	Method
Density	-	0.97 g/cm ³	-
Hardness Shore A	-	55	DIN 53505
Haze (T=300µm)	-	< 0.1	-
Light Transmittance (T=300µm)	550 nm	> 99.7 %	-
Pull strength (Glass/Glass, T=300µm)	-	> 0.5 MPa	-
Refractive index	-	1.405	-
Yellowness index (T=300µm)	-	< 0.2	-

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

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

- Automotive Electronics
- Automotive, Aerospace & Railway
- Displays & Optical Bonding
- Electrics & Electronics
- Electronics

Application details

- Optical molding for MiniLED backlight unit
- Encapsulation of optical & electronic components
- Optical bonding, Sealing for Solar, Automotives, Electronics, Industry etc.

Processing

Surface preparation

All surfaces must be clean and free of contaminants that will inhibit the cure of the product.

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

Part A : Part B = 1 : 1

Curing

Curing speed can be adjusted by UV power and time.

Also heating after UV exposure can accelerate curing process.

We recommend running preliminary tests to optimize conditions for particular application.

- Recommend Lamp type: UV-A (ex. Mercury, Metal Halide etc.), 365 nm LED (If the applies lamp is 365nm LED lamp, the higher UV irradiance would be better)

Packaging and storage

Storage

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

According to the latest findings, LUMISIL® 405 IM 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 LUMISIL® 405 IM UV A/B



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

Wacker Chemie AG, Hanns-Seidel-Platz 4, 81737 Munich, Germany

productinformation@wacker.com, www.wacker.com

The data presented in this medium are in accordance with the present state of our knowledge but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this medium should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The information provided by us does not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose.