

LUMISIL[®] 105 A/B



Room Temperature Curing Silicone Rubber (RTV-2)

LUMISIL[®] 105 A/B is a 2-part silicone gel (1:1) that is cured by heat conditions for displays.

Properties

- Self-leveling with low viscosity
- Fast cure at low temperature under 70°C
- Good optical performance and stability
- Remarkable high reliability under various harsh conditions
- Excellent thermal stability
- Low shrinkage
- Excellent stress relaxation

Specific features

- Addition Curing
- Fast curing under heat
- Flowable
- Highly transparent
- Two-component

Technical data

Properties Uncured

Property	Condition	A	B	Method
Color	-	Clear	Clear	-
Density	-	0.97 g/cm ³	0.97 g/cm ³	-
Viscosity	25 °C	5000	4600	ISO 3219

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

Catalyzed

Property	Condition	Value	Method
Viscosity of mixture	25 °C	4800	ISO 3219
Platinum-catalyst in component	-	B	-
Mix ratio	-	1 : 1	A : B
Pot life	23 °C	2.5 - 3.5 h	-
Gel time	65 °C	9 - 11 min	-

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 (Penetration, 9.38g hollow cone) ⁽¹⁾	-	35 - 55	-
Volume resistivity	-	≥ 10 ¹⁵ Ohmcm	IEC 60093
Dielectric constant	100 Hz	2.7 - 3.0	-
Haze	550 nm	< 0.1 %	-
Pull strength (Glass to glass)	-	0.25 - 0.45 N/mm ²	-
Refractive index	-	1.405	-
Transmittance ⁽²⁾	550 nm	> 99 %	-
Yellowness index	550 nm	< 0.2	-

¹Cured for 1hr at 65°C in a circulating air oven

²Double sided with 0.7mm LCD bare glass

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
- E-Mobility
- Electrics & Electronics
- Electronics

Application details

- Optical bonding in displays
- Bonding, sealing, encapsulant of optical and electronic components
- Optical bonding for touch screen panel
- Production of damping elements

Processing

LUMISIL 105 A/B

Surface preparation

All surfaces must be clean and free of contaminants that will inhibit the cure of LUMISIL® 105 A/B. 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

LUMISIL® 105 A/B can be mixed through a 24 or 32 elements static mixer as a standard.

Curing

Curing speed can be adjusted by temperature and time. Heat can accelerate the curing process. We recommend running preliminary tests to optimize conditions for particular applications. Comprehensive processing instructions are given in below.
65°C / 1hr based on T90 40min at 65°C

Packaging and storage

Packaging

- 1 KG Bottle PE
- 9 KG Bottle PE
- 20 KG Hobbok

Storage

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

Shelf life

LUMISIL® 105 A : 1 year
LUMISIL® 105 B : 1 year

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® 105 A/B 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 LUMISIL® 105 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.