

LUMISIL[®] 103 HT A/B



Room Temperature Curing Silicone Rubber (RTV-2)

LUMISIL[®] 103 HT A/B is a 2-part silicone elastomer (1:1) that cured under thermal condition for displays.

Properties

- High thermal resistance at heat release rate (HRR) test
- Low viscosity for various applications
- Remarkable optical stability under harsh condition
- Excellent thermal stability
- High adhesion with tough structure
- Low volume shrinkage with flexibility of molecular structure itself

Specific features

- Addition Curing
- fast curing at moderate temperatures
- Fast curing under heat
- Flowable
- Highly transparent
- No chemical shrinkage
- Two-component

Technical data

Properties Uncured

Property	Condition	A	B	Method
Color	-	Clear	Clear	-
Density	23 °C	0.97 - 0.98 g/cm ³	0.97 - 0.98 g/cm ³	-
Viscosity	25 °C	800 - 1200	9000 - 13000	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	2500 - 3100	ISO 3219
Platinum-catalyst in component	-	B	-
Mix ratio	-	1 : 1	A : B
Pot life	23 °C	> 4 h	-

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Properties Cured

Property	Condition	Value	Method
Density	23 °C	0.97 - 0.98 g/cm ³	-
Hardness (Penetration, 9.38g hollow cone) ⁽¹⁾	-	45 - 65	-
Volume Shrinkage	-	< 0.1 % deformation	-
Dielectric constant	100 Hz	2.7 - 3.0	-
Haze	550 nm	< 0.1 %	-
Pull strength (Glass to glass) ⁽²⁾	-	> 2.0 N/mm ²	-
Refractive index	23 °C	1.405	-
Transmittance ⁽³⁾	550 nm	> 99 %	-
Yellowness index	550 nm	< 0.2	-

¹Cure condition: 60°C, 1hr

²Pull strength test condition: T=300um, Test speed=300mm/min)

³Double sided with 0,7 mm LCD bare glass

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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

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

Application details

- Optical bonding for touch screen panel
- Encapsulation of optical & electronic components
- Production of damping elements

Processing

LUMISIL 103 HT A/B

Surface preparation

All surfaces must be clean and free of contaminants that will inhibit the cure of LUMISIL® 103 HT 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.

Degassing before Mixing

In mass production, degassing is essential process before mixing of materials

Mixing ratio

Part A (LUMISIL 103HT A) : Part B (LUMISIL 103HT B) = 1 : 1

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.
60°C / 1hr at 300 µm standard thickness
Tack free time can be increased or decreased depending on the applied temperature.

Packaging and storage

Packaging

- 1 KG Bottle PE
- 9 KG Bottle PE

Storage

LUMISIL® 103 HT A and LUMISIL® 103 HT B 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.

Shelf life

LUMISIL® 103 HT A : 1 year

LUMISIL® 103 HT 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® 103 HT 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® 103 HT A/B



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

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