

SILPURAN® 6700/40 A/B



Liquid Silicone Rubber (LSR)

SILPURAN® LR 6700 grades are self-adhesive, paste-like, easily-pigmentable two-component liquid silicone rubbers with very short curing times and good mechanical and electrical properties. Vulcanizates are noted for their self-adhesive properties to various substrates.

SILPURAN® 6700/40 A/B is designed for medical applications in compliance with the WACKER SILICONES HEALTH CARE POLICY.

Properties

SILPURAN® 6700/40 A/B grades are a primerless, self-bonding series that adhere to various thermoplasts (e.g. PA, PBT) and metals. The bonding is improved by an ageing process (e.g. one hour at 100 °C) or by a longer storage at room temperature. Because of the individual surface properties each substrate must be tested before starting mass production. If necessary, one has to check the development of adhesive properties over time and/or in an environment relevant to the application.

SILPURAN® 6700/40 A/B meets selected test requirements of ISO 10993 and United States Pharmacopoeia (USP) Class VI. It is designed for medical applications in compliance with the WACKER SILICONES HEALTH CARE POLICY including implantation for < 30 days.

Specific features

- Food-contact
- Reduced volatile content
- Self-adhesive

Technical data

Properties Uncured

Property	Condition	Value	Method
Viscosity, dynamic (1 s ⁻¹)	-	1200000 mPa·s	DIN EN ISO 3219
Viscosity, dynamic (10 s ⁻¹)	-	340000 mPa·s	DIN EN ISO 3219

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

Properties Cured

Cure conditions: 5 min / 165 °C in press, non post-cured

Property	Condition	Value	Method
Appearance	-	transparent	-
Hardness Shore A	-	40	DIN ISO 48-4
Density	-	1.11 g/cm ³	DIN EN ISO 1183-1 A
Tensile strength	-	8.2 N/mm ²	ISO 37 type 1
Elongation at break	-	640 %	ISO 37 type 1
Tear strength	-	23 N/mm	ASTM D 624 B
Compression Set	22 h 125 °C	40 %	DIN ISO 815-1 type B method A
Compression Set	22 h 150 °C	55 %	DIN ISO 815-1 type B method A
Rebound resilience	-	40 %	ISO 4662

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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.

Applications

- Medical Devices

Application details

SILPURAN® 6700 series is particularly suitable for the economical production of large series of overmolded parts (thermoplastic/elastomer), even in a comolding process (shuttle mold) under standard conditions, without any special treatment of the mold surface.

The following studies were performed on vulcanizates of SILPURAN® 6700/40 A/B according to ISO 10993:

- Cytotoxicity (ISO 10993-5)
- Sensitation LLNA (ISO 10993-10)
- Pyrogenicity (ISO 10993-11)
- Thrombogenicity and Hemolysis (ISO 10993-4)

The following studies were performed on vulcanizates of SILPURAN® 6700/40 A/B according to USP class VI:

- Acute systemic toxicity
- Intracutaneous toxicity
- Implantation test

No adverse effects have been detected at any of the studies performed.

Properly cured and post-cured vulcanizates of SILPURAN® 6700/40 A/B can be used for food contact applications and are suitable for use under the Recommendation "XV. Silicones" of the BfR and FDA 21 CFR §177.2600 "Rubber Articles Intended for Repeated Use" considering any given limitations on extractable and volatile substances.

Processing

The A and B components are delivered ready to use in 20 kg pail kits. With adequate metering equipment, they can be pumped directly from the original containers into the injection molding machine and mixed by a static mixer. The mixing ratio is 1 : 1. At room temperature, mixtures of A and B components have a pot life of at least three days.

For detailed information please refer to the latest edition of our brochure "SOLID AND LIQUID SILICONE RUBBER - MATERIAL AND PROCESSING GUIDELINES".

Packaging and storage

Packaging

This product is available in 20 kg pail kits.

SILPURAN® is neither produced nor packed under sterile conditions, so the final product has to be sterilized prior to use, if necessary.

Storage

Once opened, containers should always be resealed after use to prevent the platinum catalyst from being poisoned by amines, sulphur or phosphorus compounds. For detailed information about storage conditions please refer to the latest edition of our brochure "SOLID AND LIQUID SILICONE RUBBER - MATERIAL AND PROCESSING GUIDELINES".

The 'Best use before end' date of each batch is shown 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

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

QR Code SILPURAN® 6700/40 A/B



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

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