

SILPURAN® 4200

RTV-1 SILICONE ADHESIVE / BIOCOMPATIBLE

Product description

SILPURAN® 4200 is a non-slump to self-levelling silicone rubber formulation, curing at room temperature under the influence of atmospheric moisture to a silicone elastomer with good mechanical properties.

Properties

SILPURAN® 4200 meets selected test requirements of ISO 10993 and United States Pharmacopeia (USP) Class VI.

Special features

- acetic acid-curing system
- non-slump to self-levelling
- fast curing
- excellent primerless adhesion to many substrates
- biocompatible

Application

One-component adhesive, in particular for medical applications.

Bio certification

SILPURAN® 4200 was tested and certified according to selected tests under ISO 10993 and USP Class VI for biocompatibility.

The following studies were performed on vulcanisates of SILPURAN® 4200 according to ISO 10993:

Cytotoxicity
Sensitization

The following studies were performed on vulcanisates of SILPURAN® 4200 according to USP Class VI:

Acute systemic toxicity
Intracutaneous toxicity
Implantation test

SILPURAN® 4200 is designed for use in the manufacturing of medical devices according to the Wacker Health Care Guideline.

Processing

SILPURAN® 4200 cures at room temperature under the influence of atmospheric moisture:

Skin-forming time, 23 °C, 50 % RH 5 - 10 min
Curing time, 23 °C, 50 % RH 12 h/mm

The fully cured material typically shows good primerless adhesion to many substrates. We recommend to run preliminary tests to optimize conditions for the particular application.

Storage

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

During vulcanization of SILPURAN® 4200, a total of about 3.5 % by weight of acetic acid is split off. These vapours should not be inhaled for long periods or in high concentration. Work areas should therefore be well ventilated. Contact of unvulcanized silicone rubber with eyes and mucous membranes must be avoided as this would cause irritation. However if it does happen, rinse the affected area thoroughly with water.

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>.

Product data
Typical general characteristics
Inspection Method
Value
Product data (uncured)

Color		translucent
Density at 23 °C, at 1013 hPa	DIN 53217	1,09 g/cm ³
Viscosity, dynamic at 20 °C	DIN EN ISO 3219	300000 mPa.s
Viscosity at 23 °C , D = 10 s ⁻¹	DIN EN ISO 3219	200000 mPa s
Viscosity at 23 °C , D = 100 s ⁻¹	DIN EN ISO 3219	140000 mPa s

Product data (cured)

Color		translucent
Density at 23 °C in water (cured)	DIN EN ISO 1183-1 / ISO 2781	1,10 g/cm ³
Hardness Shore A	DIN 53 505 / ISO 868	35
Elongation at break	DIN 53504 S1 / ISO 37	300 %
Tensile strength	DIN 53504 S1 / ISO 37	5,50 N/mm ²
Tear strength	ASTM D 624	10,0 N/mm

Curing conditions: 2 mm, 14 days storage at 23 °C and 50 % RH.

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

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.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001

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

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