

POWERSIL[®] 402 A/B

Silicone Rubber Dispersions

POWERSIL[®] 402 A/B is an electrically conductive silicone rubber dispersion in Xylene. POWERSIL[®] 402 A/B can be used as conductive coating and adhesion promoting primer.

Properties

- low volume resistivity
- adhesion promoting primer
- suitable for various coating techniques like dipping, brushing or spraying

Technical data

Properties Uncured

Property	Condition	A	B	Method
Color	-	black	colorless	-
Solid content	-	25 %	-	-
Viscosity, dynamic	23 °C	16000 mPa·s	0.7 mPa·s	DIN EN 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
Mixing viscosity	23 °C	250 mPa·s	DIN EN ISO 3219
Pot life ⁽¹⁾	-	3 d	-
Mix ratio	-	1 : 1	A : B

¹at 23 °C

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Properties Cured

Cured for 30 min at 150 °C in a circulating air oven.

Property	Condition	Value	Method
Density	23 °C	1.22 g/cm ³	DIN EN ISO 1183-1 A
Volume resistivity	-	5 Ohmcm	IEC 62631-3-1
Appearance	-	black	-

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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

- Cable Accessories

Application details

- cable accessories
- electrodes
- deflectors
- adhesion promotor for moulding RTV-2/LSR onto conductive silicone rubber

Processing

After stirring up, A and B-component both have to be mixed in the ratio 1 : 1 by thorough stirring. At room temperature the pot life is at least 3 days.

Surfaces to be treated should be dry and free of grease, oil and other contaminants. For cleaning chemically pure solvents e. g. acetone can be used. The dispersion of POWERSIL® 402 A/B can be applied by dipping, spraying and with a brush.

For electrically conductive coatings we recommend a curing - after air drying for approx. 5 min at room temperature - of at least 30 min at 150 °C.

POWERSIL® 402 A/B can also be used as adhesion primer for overmoulding parts made from conductive silicone rubber with RTV-2/LSR silicone rubbers. For adhesion promoting (e.g. for deflectors) POWERSIL® 402 A/B should be vulcanized - after air drying for approx. 5 min at room temperature - for 20 min at 140 - 150 °C in a circulating air oven. Casting with a RTV-2/LSR silicone rubber should take place at the latest after 24 h. It appeared that the adhesion after heat vulcanization (e.g. 100 °C) mostly is better than after room temperature curing.

If for the application of POWERSIL® 402 A/B a higher mixing viscosity is desired a catalyzation of only the A component is possible. After stirring up 0.1 % Catalyst EP is added and stirred thoroughly. By dilution with chemical pure Xylene the desired mixing viscosity (> 500 mPa s) can be adjusted. As a general rule the individual processing conditions must be optimized for the specific application. Various substances can poison the platinum catalyst and delay vulcanization or, in extreme cases, prevent it entirely.

Particularly critical catalyst poisons are: Sulphur, polysulfides, polysulfones and compounds containing sulphur, such as natural and synthetic rubber. Amines, urethanes and substrates containing amines, such as polyurethanes, epoxy resins etc. Organometallic compounds, especially organo-tin, and substances containing such compounds. Sticky areas are signs of inhibition.

For detailed information, refer to brochures on www.wacker.com.

Packaging and storage

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

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 POWERSIL® 402 A/B



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

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