POWERSIL® GEL A/B

Silicone Gels

POWERSIL® GEL A/B is a pourable, addition-curing, two-component silicone mixture that vulcanizes at room temperature to a very soft silicone gel.

Properties

- two-part, 1 : 1 mixing ratio
- very low viscosity (uncured)
- very low hardness (silicone gel)
- transparent vulcanizate
- excellent mechanical damping properties
- non-bleeding gel

Technical data

Properties Uncured

Property	Condition	A	B	Method
Color	-	transparent	transparent, light blue	-
Viscosity, dynamic (10 s^{-1})	-	1000 mPa·s	1000 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
Viscosity, dynamic (10 s^{-1})	-	1000 mPa·s	DIN EN ISO 3219
Platinum catalyst in component	-	B	-
Mix ratio	-	1 : 1	A : B
Pot Life	23 °C	140 min	-
Curing time (thickness: 1cm)	23 °C	8 h	-
Curing time (thickness: 1cm)	100 °C	15 min	-
Curing time (thickness: 1cm)	150 °C	5 min	-

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Properties Cured

Cure conditions: 30 min / 150 °C in a circulating air oven

Property	Condition	Value	Method
Color	-	transparent, light blue	-
Density	23 °C	0.97 g/cm^3	DIN EN ISO 1183-1 A
Penetration (Hardness)(1)	-	300 1/10mm	DIN ISO 2137
Volume resistivity	23 °C	10^{16} Ohmcm	IEC 62631-3-1
Permittivity	50 Hz	2.5	IEC 62631-2-1
Dissipation factor	50 Hz	2 x 10^{-4}	IEC 62631-2-1
Dielectric strength	-	23 kV/mm	IEC 60243-1
Youngs-modulus	-	0.005 mPa	-

[1]150g cone / 60s penetration time

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Applications

- Cable Accessories
- Insulators

Application details

- sealing of MV and HV cable joints
- LV easy-to-use cable joints

Processing

Important:
The platinum catalyst is contained in component B. Only components A and B with the same lot number may be processed together.

Surface preparation:
All surfaces must be clean and free of contaminants that will inhibit the cure of POWERSIL® GEL A/B. Examples of inhibiting contaminants are sulfur containing materials, plasticizers, urethanes, amine containing materials and organometallic compounds - especially organo-tin compounds. If a substrate's ability to inhibit curing is unknown, a small scale test should be run to determine compatibility.

Mixing:
The two components should be thoroughly mixed at a 1 : 1 ratio by weight or volume. To eliminate any air introduced during dispensing or trapped under components or devices a vacuum encapsulation is recommended.
The reactivity can be adjusted within wide limits by adding Catalyst EP or Inhibitor PT 88 to suit the processing requirements of the particular application.
Catalyst EP increases the reactivity of the gel with corresponding reduction or pot life and curing time. Further information is given in our leaflet "Catalyst EP/Inhibitor PT 88".
If the gel is too soft and tacky, reducing the amount of component B will result in a harder, less tacky vulcanizate. The hardest formulation is achieved with a mixing ratio for A : B of roughly 1.5 : 1.
We recommend running preliminary tests to optimize conditions for the particular application.
Comprehensive processing instructions are given in our leaflet "Wacker RTV-2 Silicone Rubber-Processing".

Curing:
Curing time of addition curing silicone rubber is highly dependent on temperature, size and heat sink properties of the component being potted.

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

According to the latest findings, the addition-curing silicone rubber POWERSIL® GEL A/B contains neither toxic or corrosive substances which would require special handling precautions.
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® GEL A/B

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

Wacker Chemie AG, Hanns-Seidel-Platz 4, 81737 Munich, Germany
info@wacker.com, www.wacker.com