

OMNIVISC® 1050

May 2025

PRODUCT DESCRIPTION

OMNIVISC® 1050 provides the following product characteristics:

Technology	Silicone
Chemical Type	Acetoxy
Appearance (uncured)	Colourless (transparent) paste
Components	One component - requires no mixing
Viscosity	Thixotropic paste
Cure	Room temperature vulcanizing (RTV)
Application	Bonding or sealing
Specific benefits	Good chemical resistance and excellent insulating properties

OMNIVISC® 1050 is a permanently flexible ready-for-use silicone-rubber adhesive. It is an elastic silicone-rubber adhesive, suitable for a great variety of applications.

It is in a ready-for use condition and hardens at room temperature through contact with the humidity film existing on all surfaces and atmospheric humidity.

It is particularly suitable for bonding and sealing materials of different thermal expansion, as e.g. metals, glass, ceramics, wood, tissues, leather, elastomers and duroplastic materials. It has good chemical resistance in the hardened conditions, e.g. against water, acids and alkalins in low concentration, fuels and lubricants, inert and combustible gases and hydraulic liquids.

It can be used at temperatures ranging from -70°C to +200°C. Within this range OMNIVISC® 1050 does not lose its flexibility. It has excellent insulating properties. Its resistance to wear, humidity, weathering and chemicals allows its use as a protective coating also.

Typical properties of uncured material

Specific gravity @ 23°C	1.07
Viscosity, Brookfield - RVT, 20°C, mPa·s (cP)	50,000 to 80,000

Typical curing performance

Skin over time

Skin over time is the time the surface of adhesive forms a skin upon exposure to atmospheric moisture at 23°C/50% RH

Skin over time, minutes	8 to 14
Cured @ 23°C/50% RH	

Typical performance of cured material

Cured for 1 week @ 23°C / 50% RH

Physical properties:

Shore hardness, ISO 868, Durometer A		28
Elongation at break, ISO 37, %		400
Tensile strength, ISO 37	N/mm ²	3.5
Cubic coefficient of expansion	cm ³ /cm ³ · K	8 × 10 ⁻⁴
Thermal conductivity	W/m · K	0.17

Electrical properties:

Volume Resistivity, IEC 60093, ohm·cm	4 × 10 ¹³
Dielectric Strength, DIN 53481, kV/mm	24

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Safety Data Sheet (SDS).

Directions for use

Being a one-component material omniVISC is suitable for many applications. All parts to be bonded or sealed must be cleaned thoroughly with conventional solvents (e.g. LOCTITE® SF 7063). Surfaces not to be bonded can be pretreated by applying a thin layer of conventional release agents (e.g. oil, grease, wax, etc.).

Use as a sealant: Apply a uniform layer of omniVISC onto one of the surfaces and allow it to harden. Thus, the sealing layer becomes a constituent of the part. When pressing it onto the second surface, the sealant is achieved. At disassembly the sealing layer is maintained.

Another possibility is to apply omniVISC as a continuous bead on one of the surfaces and press the parts together immediately. The product is thus evenly distributed. Should a subsequent, non-destructive disassembly be required, one surface can be pretreated with a release agent.

Use as an adhesive: Apply omniVISC either in a layer or as a bead on one of the surfaces. Press and fix parts together, let the closed air escape but avoid the product from being squeezed out completely.

Use as a filler: Press omniVISC into gaps, corners or joints in such a way as to obtain a contact between omniVISC and the surfaces over the whole area. Should it be necessary to smooth the omniVISC surface, then this can be done some minutes after the application with a wetted spatula.

Hardening: Independent of the material, the hardening process starts at the outside of the omniVISC layer (which is in contact with the air). The hardening time depends on the hygrometric conditions, the extent of the air exclusion and the thickness of the omniVISC layer.

At room temperature (18°C to 23°C) and with a relative air humidity of 50%, the hardening process starts approx. 5 minutes after the application of OMNIVISC® 1050 and forms a non-sticky film after approx. 15 minutes. The hardening process is retarded with a lower air humidity (20%) and accelerated with higher humidity (80%). After 24 hours, layers of approx. 3mm Thickness have a shore hardness of 20 which increases to approx. 25 after 3 days. Thicker layers often need 7 days to reach these values.

Precautionary measures

The vinear smell spreading during the application and hardening of omniVISC is due to the evolution of about 5% in weight of acetic during the vulcanization process. This smell is no longer perceptible when final hardening is achieved. In ready-use conditions, omniVISC irritates the eyes in case of direct contact. In cases of irritation wash the eyes immediately with plenty of water and see a doctor. A prolonged skin contact should be avoided.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: 8°C to 21°C. Storage below 8°C or greater than 28°C can adversely affect product properties.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Henkel representative.

Product Specification

The technical data contained herein are intended as reference only and are not considered specifications for the product.

Product specifications are located on the Certificate of Analysis or please contact Henkel representative.

Approval and Certificate

Please contact Henkel representative for related approval or certificate of this product.

Data ranges

The data contained herein may be reported as a typical value. Values are based on actual test data and are verified on a periodic basis.

Temperature/Humidity Ranges: 23°C / 50% RH = 23±2°C / 50±5% RH

Conversions

(°C x 1.8) + 32 = °F
 kV/mm x 25.4 = V/mil
 mm / 25.4 = inches
 µm / 25.4 = mil
 N x 0.225 = lb
 N/mm x 5.71 = lb/in
 N/mm² x 145 = psi
 MPa x 145 = psi
 N·m x 8.851 = lb·in
 N·m x 0.738 = lb·ft
 N·mm x 0.142 = oz·in
 mPa·s = cP

Disclaimer

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