

Silicone High Temperature



high temperature resistant

Silicone High Temperature adhesive and sealant is red, high-temperature resistant (+300°C/+572°F), free of solvents, strong, and has acetate-cross-linking properties. It is resistant to weathering, ageing and chemicals and is extremely elastic (breaking elongation of approx. 500%).

Silicone High Temperature is particularly suitable for heat-exposed bonds and seals and adheres very well to steel, aluminium, glass, ceramics and many additional materials.

Silicone High Temperature can be used in industrial furnaces, flue gas systems, heating installations, exhaust gas routing, heating cabinets and in many additional areas.

Technical Data

Base	1 C.-Polysiloxane (Acetate)
Density	1,28 g/cm ³
Viscosity adhesive	pasty
Stability/Run-off (ASTM D 222)	1 mm
Processing temperature	+5 to +35 °C
Cure type	by humidity
Curing condition	+5 to +40°C and 30% to 95% rel. humidity
Skin-overtime*	12 min.
Curing speed (first 24h)	2 -3 mm
Volume change (DIN 52451)	-1 %
Gap filling up to max.	5 mm
Shelf life (+5°C to +25°C / +41°F to +77°F)	12 months
Shore A hardness (DIN 5355 / ASTM D 224) ± 5	35
Elongation at break (DIN 53504/ASTM D 2240) ± 5	500 %
Tensile strength of pure adhesive and sealant	2,0 N/mm ²
Average tensile shear strength (DIN 53283 / ASTM D 12)	1,3 N/mm ²
Tear strength (DIN 53515/ASTM D 1002)	6,0 N/mm ²
Movement capacity max.	15 %
Solid percentage	100 %
Overpaintable (liquid paint)	No

Specific forward resistance	2,5 x 10 ¹⁵ Ohm/cm
Dielectric strength	21 kV/mm
Thermal conductivity	0,3 W/m.K
Building material category (DIN 412)	B 2
Temperature resistance	-60 to +280 briefly (approx. 2 h) to +300 °C

*Measured at 50% relative air humidity and +23°C

Surface pre-treatment

The surfaces must be clean and grease-free. Many surface contaminants, e.g. oil, dust and dirt. Most materials can be bonded well to themselves and among each other. For certain materials or extreme requirements, we recommend the use of an adhesion agent (primer). Detailed information on this subject is contained in the Primer selection table. A mechanical surface pretreatment, e.g. sanding or sand-blasting, can considerably improve the adhesion.

Processing

Processing cartridge

Application methods: Hand cartridge gun for 310 ml cartridges, compressed air gun (we recommend a variation with piston rod), automatic dosing systems.

Processing tube

Squeeze out by hand, close tube again immediately after use, opened tubes should be used up as quickly as possible.

Joining the parts to be bonded

To ensure optimum wetting, the parts must be joined before the first skin has been formed on the adhesive (skin-over time).

Storage

When unopened and stored in a normal climate (+23°C and 50 % rel. humidity), Silicone High Temperature has a shelf life of 12 months.

Safety and health

When using products, the physical, safety technical, toxicological and ecological data and regulations in our EC safety data sheets must be observed.

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