TECHNICAL INFORMATION

BEST-Silicone 301

BEST-Silicone 301 is a one component, acetic acid interlacing silicone rubber (RTV-1 silicone rubber) adhesive and sealant with high elasticity

BEST-Silicone 301 is designed for long lasting elastic sealing and bonding of glass, ceramics, enamel, painted wood, acid-proof metals like alloy, chrome-plated parts, stainless steel and various plastics. It is preferably used in electronics, electrical engineering, tool making and engineering and glass industry.

Typical Properties

Fast curing, high temperature resistance, very good shear strength on different materials, long lasting elasticity, chemical and heat resistant

Curing

- curing to a permanently elastic material at room temperature by atmospheric humidity
- a small amount of acetic acid is separated during curing (polycondensation)
- a dry skin is formed after 10-20 minutes
- curing of the silicone rubber with approx. 2 mm / 24 h
- Humidity below 40 % may reduce curing

Directions for use

- the product is ready for use from the original container after bevelled cutting of the nozzle.
- applied in dots or beads on the bond surfaces
- assemble bonding parts immediately afterwards with short and strong pressure
- Surfaces to be bonded should be dry, free from dust, grease and other contaminants
- **BEST-Clean** cleaners are recommended for cleaning

Product characteristics

Chemical Type	**Acetoxy silicone**
Curing system	**by atmospheric humidity**
Colour	**translucent white**
Viscosity (Brookfield)	**paste-like**
Density (DIN EN 542)	**1,08 x 10^3 kg/m^3**
Bonding gap	**10,0 mm**
Shelf life Storage in unopened container at 10 to 23°C)	**1 Year**

Curing time at 23°C

Skin formation time	**10 - 20 min.**
Deep curing (50% atmospheric humidity)	**2 mm/24h**
Processing temperature	**-20 to +50°C**
Shrinkage (DIN 52 451)	**approx. 3 vol. %**

Strength of cured Material

Tensile strength (DIN EN ISO 527)	**5 N/mm^2**
Breakloose Moment (DIN 54454	**7 Nm**
Elongation at break (DIN EN ISO 527	**500%**
Recommended long-time Temperature range **Quick-time**	**40°C to +200°C** **up to +250°C**
Shore hardness A (DIN 53505)	**28**
Water absorption **(DIN EN ISO 62, 24h at room temperature, approx. 23°C)**	**0,06 weight%**
Specific volume resistance (VDE 0303, part 3)	**8xE14 Ohm x cm**
Breakdown voltage (VDE 0303, part 2)	**21 kV/mm**
Dielectric constant (VDE 0303, part 4)	**3,1 – 3,0 (50-70 Hz)**
Creep resistance CTI (VDE 0303, part1, IEC 112)	**KA 3 c**

Industrial health and safety standards

Hazard Statements: Causes skin irritation. Causes serious eye irritation. General knowledge for safe handling of chemicals recommended. During the polymerisation acetic acid is released which irritates skin, eyes and respiratory organs. Please consult EU – Safety Data Sheet for further information.

General

The data and information above correspond to the current know-how of BEST-Klebstoffe GmbH & Co. KG. Our information and data have been developed from laboratory tests and extensive practical experience. They shall not release any customer from its duty to perform receiving inspections and to do test runs in view of any intended use, nor do they constitute a representation that any product will have specific properties or be suitable for any definite use. BEST-Klebstoffe GmbH & Co. KG reserves the right to chance the contents of this document as necessary.

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