ELASTOSIL® N2199

RTV-1 SILICONE RUBBER / ADHESIVE

Product description

ELASTOSIL® N2199 is a one-part, nonslumping paste that cures at room temperature to a permanently flexible silicone rubber on exposure to atmospheric moisture.

Properties

ELASTOSIL® N2199 is a ready-to-use, acid- and sovent-free, non-corrosive RTV-1 (room temperature vulcanizing, one-component) silicone rubber suitable for many applications.
Excellent adhesion to plastics and metals in combination with a high elasticity and durability open up a wide range of potential uses for ELASTOSIL® N2199. The consistency of the uncured material allows a high application rate and makes it a good choice not only for dispensing from a caulking gun but also for automatic dispensing. Seals made from ELASTOSIL® N2199 exhibit an outstanding resistance to weathering, ageing, moisture, and UV light.
The fully cured rubber can withstand expansion-compression cycles for many years and is therefore especially well suited for joining materials with different coefficients of thermal expansion.
The vulcanized silicone rubber permanently remains elastic over a wide temperature range from -50 °C to +150 °C (-58 °F to +302 °F).

Special features

- neutral curing system (alkoxy)
- solvent-free
- non-slump
- excellent unprimed adhesion to many plastic, metal, glass, and ceramic surfaces
- transparent
- ELASTOSIL® N2199 meets the physical requirements of MIL-A-46146, Group I, Type I

Application

- general-purpose adhesive for technical applications

Processing

ELASTOSIL® N2199 is a one-part room temperature vulcanizing sealant that cures to a flexible silicone rubber on exposure to water vapor in the air.
The curing rate strongly depends on temperature and atmospheric humidity in the surrounding.
During the curing process a small amount of an alcohol is released.
After completion of the vulcanization process the product may be continously exposed to temperatures as high as 150 °C (302°F) without damage. If removing of silicone rubber from machines or dispensing equipment is necessary, white spirit is recommended as a solvent. However, cleaning should take place before the rubber is fully cured. Afterwards only the use of mechanical forces in combination with a swelling solvent or the use of high temperatures of approximately 100°C will help to remove sealant residues. ELASTOSIL® N2199 shows good primerless adhesion to many substrates. We recommend to run preliminary tests to optimize conditions for the particular application.

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.

Additional information

Tests according to the United States Military Standard (MIL-SPEC):
Wacker Chemie AG performs all test referring to MIL Spec according to its current test methods, lab conditions, quality methods, procedures, sampling, packaging, and so forth. These test methods, lab conditions, quality methods, procedures, sampling, packaging, and so forth need not necessarily be identical with the test methods, lab conditions, quality methods, procedures, sampling, packaging, and so forth listed in the above-mentioned specification. Compliance with the above-mentioned MIL Spec is

limited to certain properties (excluding hydrolitic stability as mentioned in MIL-A-46106, Group I, Type I) and does not imply or state conformity to any other aspect of the referenced specification, including but not limited to sampling, marking, packaging, bar coding, testing, or sampling.

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.

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Product data

Typical general characteristics	Inspection Method	Value
Product data (uncured)		
Color		transparent
Density at 25 °C	ISO 2811	1,03 g/cm³
Extrusion Rate (3 mm nozzle, pressure 0.21 N/mm², 23 °C)		8 g/10s
Skin-forming time, 23 °C, 50 % RH		15 min
Product data (cured)[2)]		
Density at 25°C	ISO 2781	1,06 g/cm³
Tensile strength	ISO 37	2,5 N/mm²
Elongation at break	ISO 37	350 %
Hardness Shore A	ISO 868	30
100 % modulus	ISO 37	1,0 N/mm²

[1)] Nozzle diameter:3 mm (0.12").
[2)] Conditions: 2 mm, 14 d storage at 23 °C, 50 % RH.
These figures are only intended as a guide and should not be used in preparing specifications.

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

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