

# ELASTOSIL® N 9132S GREY

RTV-1 SILICONE RUBBER

## Product description

ELASTOSIL® N 9132S GREY is a one-part, non-slump paste that cures at room temperature on exposure to atmospheric moisture to a permanently flexible silicone rubber.

## Properties

ELASTOSIL® N 9132S GREY is a ready-to-use, acid- and solvent-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® N 9132S GREY, for example production of picture tubes. 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® N 9132S GREY 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).

ELASTOSIL® N 9132S GREY was developed especially for applications that involve engineering plastics like polymethacrylates and polycarbonates.

## Special features

- one-part, ready-to-use
- excellent unprimed adhesion to most plastic, metal, glass, and ceramic surfaces
- Flame retardant: meets UL94 V-0
- general purpose adhesive for technical applications
- gluing and sealing applications requiring UL94 V-0 approval

## Processing

ELASTOSIL® N 9132S GREY is a one-component room-temperature-vulcanizing sealant that cures to a

flexible silicone rubber on exposure to water vapor in the air. During the curing process a small amount of an alcohol is released. Usually no volume shrinkage is observed. The crosslinking starts at all places where the paste comes into contact with atmospheric moisture and proceeds from the outer to the inner parts of the sealing. After about 10 to 20 minutes a skin of cured material is formed at the surface. After at the latest one hour the surface becomes tack free. At this point, adhered parts may be moved without destruction. For the crosslinking to take place, water vapor from the air is needed. For this reason the curing rate strongly depends on the atmospheric humidity in the surrounding. The higher the atmospheric moisture the faster the material will be cured fully. The temperature has a great influence on the curing rate as well. The higher the temperature the faster the material will be fully cured. Despite that, heating of the paste above 60°C before full cure is not recommended because the crosslinking agent may be vaporized. Additionally, the formation of bubbles may occur. But after completion of the vulcanization process the product may be continuously exposed to temperatures as high as 150°C (302°F) without damage.

## Adhesion Properties

ELASTOSIL® N 9132S GREY shows excellent adhesion properties when applied to filled or unfilled poly (butylene terephthalates) (PBT, for example Vestodur 2000, X7095, FGS2026, GF10, GF30), polyester resins and all silicate-like grounds (for example glass), too. Adhesion to talc-filled polypropylene (PP) is satisfactory and may be improved using common pretreatments of the plastics surface (corona treatment, cauterization, flame-treatment). Since the composition of substrates can vary greatly, especially in the case of plastics, adhesion tests for the specific surface are advisable. Values for lap shear strength and peel adhesion forces given here only apply to the specific types of materials. However, it may not be concluded that higher or lower values are impossible when other types are used. Before applying ELASTOSIL® N 9132S GREY, all surfaces have to be clean, dry and fat-free in order to achieve maximum adhesion. For cleansing of surfaces, lowboiling hydrocarbons that evaporate without any residues are recommended.

**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**

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>.

**Product data**

Typical general characteristics	Inspection Method	Value
Colour		gray or white
Density at 25 °C	ISO 1183-1 A	approx. 1,3 g/cm <sup>3</sup>
Extrusion rate at 6.3 bar <sup>1)</sup>		270 g/10s
Skin-forming time		15 min

**Product data (cured)**

Colour		gray or white
Density at 25 °C	ISO 1183-1 A	approx. 1,3 g/cm <sup>3</sup>
Hardness Shore A	DIN 53505 / ISO 868	33
Elongation at break	DIN 53504 S 2 / ISO 37600 %	
Tensile strength	DIN 53504 S 2 / ISO 372,4 N/mm <sup>2</sup>	
Flame retardancy	UL-94	V 0

<sup>1)</sup> Nozzle diameter: 3 mm (0.12").

Curing conditions: 2 mm, 14 days storage at 23 °C and 50 % RH.

These figures are only intended as a guide and should not be used in preparing specifications.

The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001

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