

# GENIOSIL® N 550

Silane Modified Polymer Adhesive/Sealant

## Characteristics

GENIOSIL® N 550 is a one-part silane modified polymer adhesive. The nonslumping paste cures at room temperature to a permanently flexible on exposure to atmospheric moisture. It is fully compatible to suitable paints.

## Special characteristics

- Free of isocyanates, tin catalysts and silicones
- No siloxane based volatiles/leachables
- Neutral curing system (Methoxy-terminated)
- Temperature range from -50 °C to 120 °C
- Solvent free
- Non-slump
- Excellent unprimed adhesion to most plastic, metal, glass, and ceramic surfaces
- Can be varnished with suitable paints in cured and uncured state

## Application

- Permanently elastic adhesive
- Sealant / elastic adhesive for technical applications in automotive, bus, truck and rail

## Typical Properties

GENIOSIL® N 550 is a ready-to-use one component sealant. It is free of organotin catalysts, isocyanates, silicones and solvents. By products are non-corrosive. The sealant is based on silane terminated polymer which cures under moisture influence to an elastic rubber. Increased temperature and/or moisture shortens the skin formation time, vice versa lower temperatures and humidity extends the curing process.

Good adhesion to plastics and metals in combination with a high elasticity and durability open up a wide range of potential uses for GENIOSIL® N 550. GENIOSIL® N 550 exhibits good resistance to weathering, ageing, moisture. Therefore it is suited both for internal and external applications.

The vulcanized elastomer permanently remains elastic over a wide long-term operation temperature range from -50 to +120 °C. Permanent exposure at 100 °C (1000h) and short term peak temperatures of up to 160 °C (1 h) are possible.

### Product data (uncured)

Property	Method	Unit	Value
Color			grey
Density at 23 °C	ISO 2811	[g/cm <sup>3</sup> ]	1.3
Skin-forming time, 23 °C / 50 % RH		[min]	25

### Product data (cured)

Property	Method	Unit	Value
Density at 23 °C	ISO 2781	[g/cm <sup>3</sup> ]	1.36
Tensile strength	ISO 37	[N/mm <sup>2</sup> ]	3.0
Elongation at break	ISO 37	[%]	350
Hardness Shore A	ISO 868		55
100 % Modulus	ISO 37	[N/mm <sup>2</sup> ]	1.6

Conditions: 2mm, 14 d storage at 23 °C, 50 % RH

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

## Processing

GENIOSIL® N 550 cures to a flexible elastomer on exposure to water vapor in the air.

The curing rate strongly depends on temperature and atmospheric humidity. During the curing process a small amount of an alcohol is released.

After completion of the vulcanization process the product may be continuously exposed to temperatures as high as 100 °C, peak temperatures of 160 °C for short expositions are possible.

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.

GENIOSIL® N 550 shows good primerless adhesion to many substrates such as metals, glass and different plastics and resins. We recommend to run preliminary tests to optimize conditions for the particular application.

## Storage

GENIOSIL® N 550 has a shelf life of at least 6 months when stored between 10 °C and 25 °C in the tightly closed original container. The 'Best use before end' date of each batch appears 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 information

GENIOSIL® N 550 must be kept away from the eyes and mucous membranes since irritation is possible. Prolonged, repeated contact with the skin should likewise be avoided. Detailed safety information is contained in each material data safety sheet, which can be obtained from our sales offices.

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

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