

PRODUCT DATA

Nippon Steel

TECHNICAL BULLETIN

NS 625 A & B

Product Description

Nippon Steel NS 625 is two part silicone rubber:flowable liquid silicone and curing agent. Cure at room temperature within 3~4 hours. An exceptional fluidity and good operability, easy to demold. Good tensile and tear strength, low shrinkage. High duplication times.

Usage

Silicone Rubber for PU/poly resin, unsaturated resin, plaster, candles and gypsums craft, toys, soap, statuary, casting molds making, etc.

Model	NS 625 A & B
Appearance	White
Mixing proportion of curing agent (%)	5 %
Operating time (min 25°C)	40
Curing time (hours 25°C)	3-4
Hardness (A°)	25±2
Density (g/cm ³)	1.08
Viscosity (mPas-25°C)	18000±2000
Tensile-strength (kgf/cm ²)	≥45
Tear-strength (kgf/cm)	≥29
Elongation-break (%)	≥450
Retractility (%)	≤0.3

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Users Instruction

RTV-TWO molding silicone rubber (silicone) and silicone are generally named as two-part room temperature sulfurated silicone rubber, which features an exceptional fluidity and good operability. When mixed with 4%-5% curing agent, they can still be operated within 50 minutes, but will be formed after 4-5 hours. With resistance to deformation, high temperature, acid and alkali, and expansion, silicone flexible molds are used for mold duplication and delicate mold making for poli crafts , resin crafts lighting and candle crafts.

This product is a white flowable liquid with a hardness of 22-50A° when cured. If large products and therefore multiple-piece molds are needed by customers, silicone rubber with higher hardness will be required for the molds. Conversely, soft silicone is indispensable for molds with complicated pattern and delicate details. The amount of curing agent admixture depends on the actual need of customers. More will be added for speedy drying and fast release and less when otherwise.

(Note: We do not recommend silicone oil. For special soft mold or molds with complex pattern or fine details, 5%-10% silicone oil can be added to condition the flexibility of the mold for convenience of release)

Curing agent and silicone proportion and reaction (Under room-temperature-25C):

1. Added with 2% of curing agent, silicone can still flow within 2.3 hours, mold can be released in 8-10 hours.
2. Added with 3% of curing agent, silicone can still flow within 1.5 to 2 hours, mold can be released in 7-8 hours.
3. Added with 4% of curing agent, silicone can still flow within 70-80 minutes, mold can be released in 5-6 hours.
4. Added with 5% of curing agent, silicone can still flow within 40 minutes, mold can be released in 3-4 hours.

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Technical Guidelines

1. Stir the base (Part A) well before use (except when depending on machine).
2. Shake the catalyst container (Part B) well before use.
3. This is a 100 part A to 5 Part B mixing ratio by weight. Weight the desire amount of base into a clean mixing container.
4. Weight the proper amount of catalyst into the container. Mix the base and catalyst together by stirring with a stick until a uniform color is obtained. Scrape the container walls and bottom well to insure a thorough mix.
5. Though it is often unnecessary to deair the material due to its low viscosity some may choose to do so. If so, place the container into a vacuum chamber and evacuate the entrapped air from the mixture using a vacuum pump capable of achieving 29 inches of mercury vacuum. The mixture will rise, crest and then collapse in the container. Interruption (bumping) of the vacuum may be necessary to prevent overflowing the container. Keep the mixture under full vacuum for 2-3 minutes.
6. Bleed air slowly into the vacuum chamber. When the chamber is at atmospheric equilibrium, remove the cover plate and take out the container.
7. Pour the deaired material slowly in a steady stream from one end of the mould so that the material flows evenly over the pattern. This should minimize entrapment of air bubbles under the flowing material. A “ ready “ mold may be poured firstly over the pattern, which will also help reduce the possibility of entrapping air on the pattern and in the cured rubber. A mold release agent may be applied on the pattern first to improve release.
8. Allow the rubber to cure for 2-4 hours at 24C before removing the cured rubber mold from the pattern. Heat acceleration not recommended with this product.
9. For best results, allow the mold to air cure an additional 24 hours before using it in production.

Shelf Life

Twelve (12) months from date of shipment when stored at 25°C in the original sealed packages.

Package

Packed in clean 25kg/pail, 5kg/pail, 1kg/pail

First Aid

Inhalation: Remove source(s) of contamination and move victim to fresh air.. Contact physician immediately.

Eye Contact: Flush eyes with plenty of water. If irritation persists, seek medical attention.

Skin Contact: In case of skin contact, wash thoroughly with soap and water, remove contaminated clothing and launder before reuse, seek medical attention if rash develops.

Ingestion: Do not induce vomiting unless instructed by a physician. Contact physician immediately.

After first aid, get appropriate in-plant, paramedic, or community medical support