



Adhesive

NF1011-10

GBA

Heat & Cold Resistance Silicone Sealing Adhesive

Descriptions

NF1011-10 is a fast-curing, one-component silicone sealing adhesive developed and manufactured in-house by GBA. It cures through a moisture-activated, non-sensitive process and delivers excellent elasticity. Once vulcanized, it forms a strong, durable seal. This product is especially well-suited for use with automated dispensing systems in professional production environments.

Product Highlights

- Single-component, neutral-cure adhesive that is non-corrosive to materials. It features a simple application process, fast curing, and maintains its original color after curing.
- Excellent adhesion to a variety of substrates including glass, metal, plastic, and more.
- Strong resistance to oils.
- Outstanding temperature resistance, maintaining stable performance across a wide range from -60°C to +260°C.

SPECIFICATIONS TABLE

Typical performance	Unit	NF1011-10	Test Method
Color	–	Black/Grey	Visual
Resin	–	monocomponent silicon	–
Extrusion Rate (55cc, 1.5mm needle@60psi)	g/min	2 ±0.5	GBA
Tack-free Time	min	≤4	GBA
Gel Time	h	1	GBA
Curing Speed	mm/24h	≥4.0	GBA
Density	g/cm ³	1.35	ASTM D792
Hardness	Shore A	45±5	ASTM D2240
Tensile Strength	MPa	≥1.0	ASTM D412
Elongation	%	≥200	ASTM D412
Shear Strength (AI)	MPa	≥1.5	ASTM D1002
Volume Resistivity	Ω-cm	≥1.0 ×10 ¹⁴	ASTM D257
Dielectric Strength	kV/mm	≥10	ASTM D149
Flammability	–	HB	UL94
Temperature Range	°C	-60~260	GBA
RoHS	–	Yes	GBA

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Product Applications

- Suitable for sealing and bonding in automotive components and photovoltaic products, such as junction boxes and aluminum frames.
- Ideal for general-purpose sealing or bonding of various electronic and electrical components.

PACKAGING

- Available in 55cc and 300cc syringes
- Custom packaging options available upon request

STORAGE & SHELF LIFE

- Store in a sealed container in a cool, dry environment between -20°C and 30°C
- Shelf life: 4 months from the date of manufacture

USAGE INSTRUCTIONS

Surface Preparation:

- Clean surfaces thoroughly using sandpaper or solvents (e.g., toluene or xylene) to remove rust, oil, dirt, or other contaminants that could hinder adhesion.
- Exercise caution when using solvents on plastic surfaces, as some plastics may be sensitive or become damaged.

Dispense and use:

- Load NF1011-10 into an FIP (Form-in-Place) dispensing machine.
- Select the appropriate dispensing needle size and apply the adhesive.
- Bond the mating surface promptly before surface curing begins.
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Storage After Opening:

- For best results, use the entire contents at once.
- If unused material remains, reseal the container tightly using the removed nozzle as a plug. Properly sealed, the product can be stored for several days.

SAFETY & HYGIENE

- Always use NF1011-10 in a well-ventilated area, as methanol gas is released during curing. If discomfort occurs, move to a fresh air environment.
- Uncured adhesive may irritate skin and mucous membranes. Avoid contact with eyes and prolonged skin exposure.
- In case of eye contact, rinse immediately with water for at least 15 minutes and seek medical attention.
- For skin contact, wipe off the adhesive with a dry cloth and wash thoroughly with soap and water.
- Contact lens wearers should take extra caution, as adhesive can bond lenses to the eyes.
- Avoid touching your eyes while handling the product. Use protective gear such as safety glasses where appropriate.
- Keep out of reach of children.