

NITTO EPTSEALER

NO.685 Series

Foam sealing material with superior resistance to weather, cold, heat and chemicals.



Semi-closed cell structure

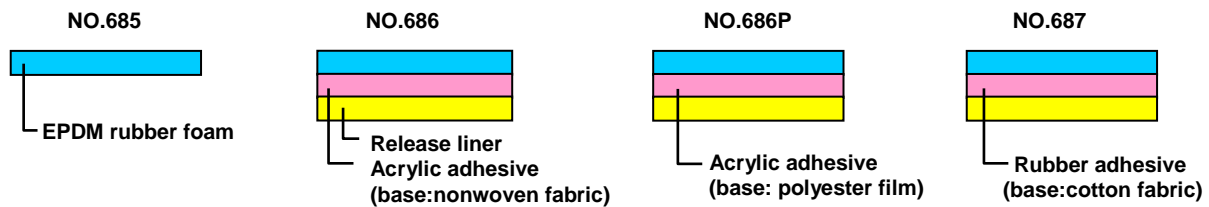
Outline

NITTO EPTSEALER NO.685 Series are high-function foam sealing materials consisting of EPDM rubber foam with semi-closed cell structure offering the best durability and weather resistance of all general purpose rubber. Because they are made of flexible material, these products offer superior watertightness and airtightness. No.685 Series includes tape materials coated with butyl rubber adhesive and synthetic resin adhesive. You can select the type that best meets your needs.

Features

- Offers superior durability and resistance to weather cold and heat (-20°C to 100°C), and chemicals (acids and alkalis).
- Compression load (stress) is slight, so structure is not deformed after foam filling.
- Flexible material is easy to use when compressed.
- Low specific gravity of 0.13; foam pieces do not fuse together.

Structure



Standard Size

| Thickness (mm) | Width (mm) | Length(m) |
|-----------------------------|------------|-----------|
| 3~35 (No.686 686P 687 3~40) | 1000 | 2 |

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Applications

- Sealing of air-conditioner ducts.
- For objects/areas requiring superior watertightness.
- For instrumental panel and windshield mounting.
- For mounting of mirrors and center pillars.

Properties

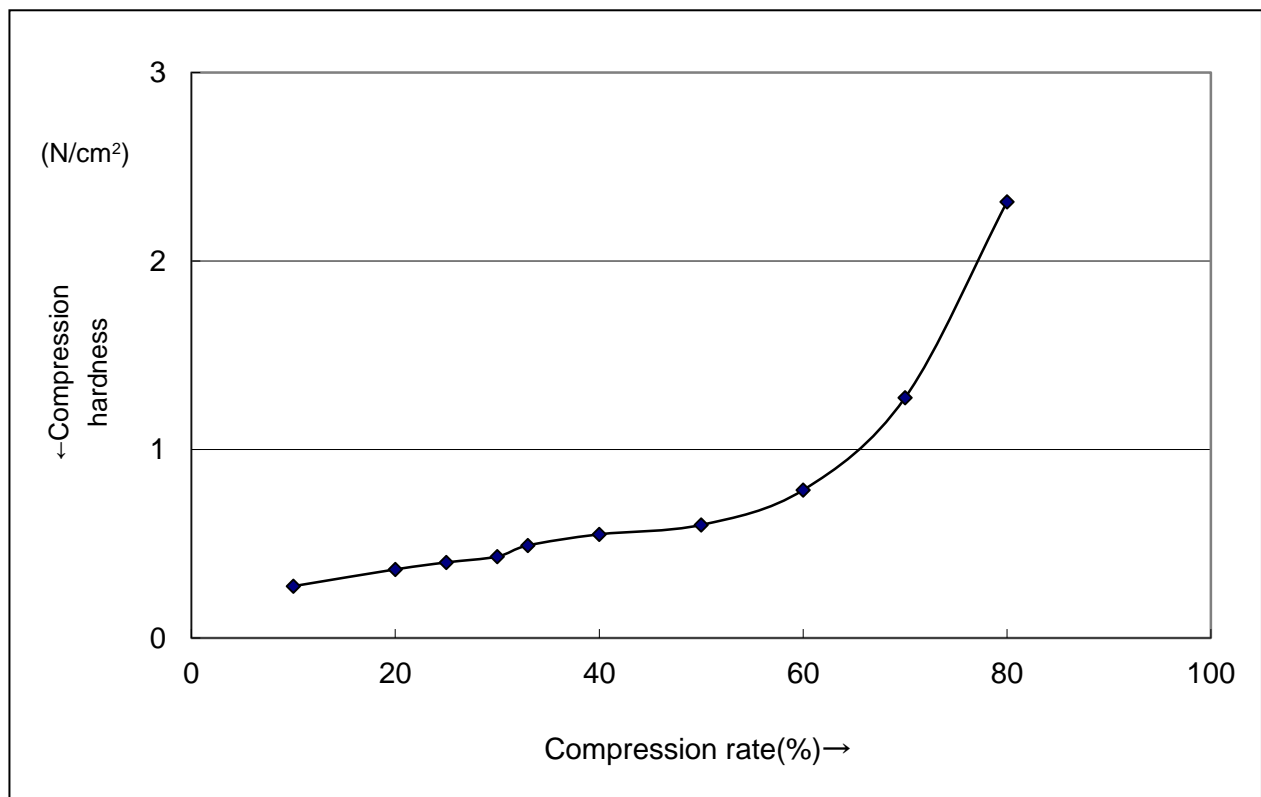
Conform to JIS K 6767

| Product No. | Specific gravity (g/cm ³) | Tensile strength (N/cm ²) | Elongation (%) | Compressive hardness (N/cm ²) | |
|---------------|--|--|-------------------|---|------|
| | | | | 25% | 50% |
| NO.685 Series | 0.13 | 10 | 550 | 0.39 | 0.60 |

*The above values are sample observed value, not the guaranteed performance.

● Compression Ratio vs. Compression Hardness Relations

$$\text{Compression rate (\%)} = \frac{\text{thickness before compression} - \text{thickness after compression}}{\text{thickness before compression}} \times 100$$



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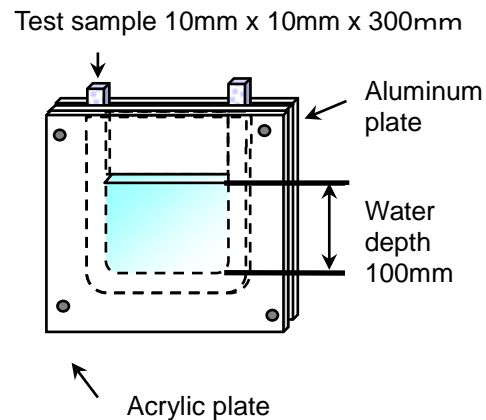
● Compression rate vs. Watertightness Relations

| Compression(%) | No.685 |
|----------------|--------|
| 60 | △ |
| 70 | ○ |
| 80 | ○ |
| 90 | ○ |

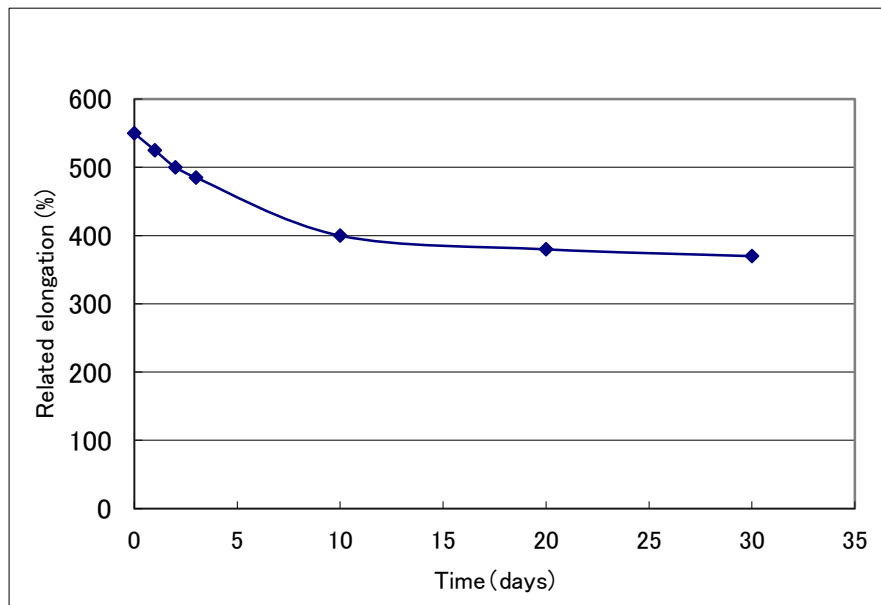
- : No water leakage after 30min
- △ : Water leakage within 30min
- × : Water leakage within 10min

Note

U-shaped 10mm thickness and wide test specimens were punched out and placed between acrylic and aluminum plates for compression to a preset load. Then the test specimens were filled with water to the depth of 100mm, and checked for leakage.



● Heat Resistance

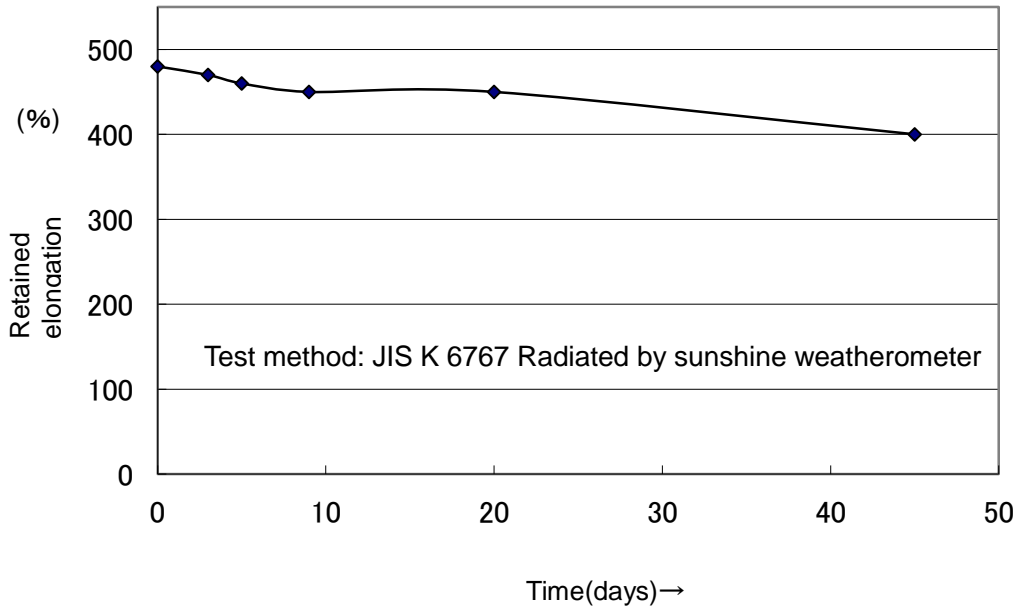


Test Method :JIS J6767 Heating Condition:100 °C

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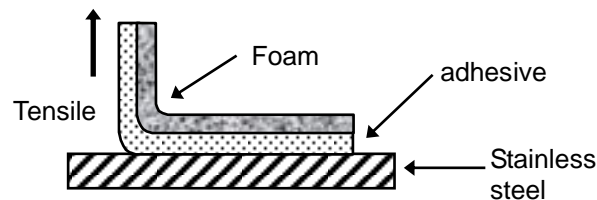
● Weatherability



● Peeling adhesion

N/15mm

| NO.686 | NO.686P | NO.687 |
|--------|---------|--------|
| 6.1 | 7.0 | 10.8 |



Test method

A 15mm wide piece of foam/tape is applied to stainless steel with a 2kg roller passed back and force once. After allowing it to set for 30minutes, adhesive strength is measured by peeling the foam/tape at a 90° angle.

Pulling rate: 300mm/min. Measurement temperature : Room temperature

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Precautions

- Wipe oil, moisture, and dust off the surface of adherends thoroughly before application.
- When processing foam/synthetic resin adhesive into ribbons, make sure to cut and process it in lengthwise. If it is cut in widthwise, the tape may stretch when using.
- When processing foam/ butyl rubber adhesive into ribbons, make sure to cut and process it in lengthwise and widthwise. If it is cut diagonally, the tape may stretch when using.
- The adhesive is pressure-sensitive. Handle it with utmost care.
- Most recommended temperature for adhesion is above 10°C. (If the temperature is below 10°C (like in winter), their initial adhesive strength will be low.)
- Place the original roll of these products horizontally for storage to avoid deformation.
- Keep the products away from high temperatures and humidity, and store them in a dark cool place avoiding direct sunlight.
- The numbers in this data sheet are typical measurements in our laboratory, and not guaranteed values.
- Make sure the product is suitable for the application (objective and conditions) before attempting to use. The tape may come off depending on the substrate to which it is applied or conditions under which it is applied.