

# Urethane & Rubber Sponge Sheets

For Sponge Gaskets, refer to P.2632. For Sponge Tapes, refer to P.2626.

### Urethane & Rubber Sponge Sheets

| A / B Selectable Type |          | A / B Configurable Type |          | Material                     | Hardness               | Color  |
|-----------------------|----------|-------------------------|----------|------------------------------|------------------------|--------|
| No Adhesive           | Adhesive | No Adhesive             | Adhesive |                              |                        |        |
| SGNN                  | SGNS     | SGNNF                   | SGNSF    | Polyurethane Sponge          | Less than Asker C1     | Black  |
| —                     | —        | SGNC                    | SGNCA    | Chloroprene Rubber Sponge    | Asker C25              | Black  |
| —                     | —        | SGNW                    | SGNWA    | Chloroprene Rubber Sponge    | Asker C25              | White  |
| —                     | —        | SGNP                    | SGNPA    | EPDM Synthetic Rubber Sponge | ASKER 80               | Black  |
| —                     | —        | SGNB                    | SGNBA    | NBR Sponge                   | ASKER C30              | Black  |
| SISP                  | SISA     | SGNA                    | SGNAA    | Silicon Rubber Sponge        | Asker C35* (Asker C22) | Orange |
| —                     | —        | SGNL                    | SGNLA    | Silicon Rubber Sponge        | Asker C15              | Orange |
| —                     | —        | SGNF                    | SGNFA    | Fluoro Rubber Sponge         | Asker C35              | Black  |

① SGNN, SGNWA might discolor by aging.  
 \* Values in ( ) are applicable to Selectable Type of silicon sponge.  
 ② The adhesive's heat resistance limit is 80° C.

#### Accuracy Standards

| Polyurethane Sponge |           | Others      |           |
|---------------------|-----------|-------------|-----------|
| A / B               | Tolerance | A / B       | Tolerance |
| 390 or Less         | ±2        | 190 or Less | ±1.5      |
| 400-790             | ±2.5      | 200-390     | ±2        |
| 800                 | ±3        | 400 or More | ±3        |

③ Adhesive thickness is 0.14-0.2 mm.

## A / B Selectable Type

| Part Number  | T  | Tolerance | Selection |     |
|--------------|----|-----------|-----------|-----|
| Type         | T  |           | A         | B   |
| SGNN<br>SGNS | 10 | ±1        | 100       | 100 |
|              | 30 | ±2        | 200       | 400 |
|              | 50 | ±3        | 500       | 800 |
| SISP<br>SISA | 3  | ±0.5      | 100       | 100 |
|              | 5  | ±1        | 250       | 100 |
|              | 10 |           |           |     |

① SISP and SISA are double side coated.

Part Number Example

**Standard Type**

Part Number - A - B

SGNN10 - 100 - 100

SISP10 - 250 - 100

**Configurable Type** ①A-B

Part Number - A - B - T

SGNCA - 320 - 220 - 10

## A / B Configurable Type

| Part Number  | 10 mm Increment |        | T Selection | T Tolerance |
|--|-----------------|--------|-------------|-------------|
|  | A               | B      |             |             |
| SGNC<br>SGNW<br>SGNP<br>SGNB<br>SGNCA<br>SGNWA<br>SGNPA<br>SGNBA | 20-500          | 20-500 | 3           | ±0.5        |
|  |                 |        | 5           |             |
|  |                 |        | 8           |             |
|  |                 |        | 10          |             |
|  |                 |        | 15          |             |
|  |                 |        | 20          |             |
| SGNA<br>SGNL<br>SGNF<br>SGNAA<br>SGNLA<br>SGNFA                  | 20-500          | 20-500 | 2           | ±0.5        |
|  |                 |        | 3           |             |
|  |                 |        | 5           |             |
|  |                 |        | 10          |             |
| SGNNF<br>SGNSF   | 10-500          | 10-500 | 10          | ±1          |
|  |                 |        | 30          |             |
|  |                 |        | 50          |             |

## Characteristics of Sponges

| Item                                    | Unit                       | Polyurethane Sponge   | Chloroprene Rubbers Sponge    | EPDM Synthetic Rubber Sponge  | NBR Nitrile Rubber Sponge     | Silicon Rubber Sponge  |           |        | Fluoro Rubber Sponge   |
|---|----------------------------|-----------------------|-------------------------------|-------------------------------|-------------------------------|------------------------|-----------|--------|------------------------|
|   |                            |                       |                               |                               |                               | HS35                   | HS22      | HS15   |                        |
| Apparent Density                        | g/cm <sup>3</sup>          | 0.022                 | 0.18                          | 0.13                          | 0.21                          | 0.35-0.37              | 0.35-0.37 | 0.3    | 0.45                   |
| Air Bubble                              | —                          | Continuous Air Bubble | Independent Air Bubble        | Independent Air Bubble        | Independent Air Bubble        | Independent Air Bubble |           |        | Independent Air Bubble |
| Tensile Strength                        | Mpa (kgf/cm <sup>2</sup> ) | ≥0.076 (≥0.77)        | 0.9 (9)                       | 0.5 (5)                       | 0.8 (8)                       | 1.6-1.8 (16-18)        | 0.7 (7)   | 1 (10) | 2.7 (27)               |
| Elongation                              | %                          | ≥120                  | 170                           | 200                           | 200                           | 200-250                |           | 250    | 280                    |
| 25% Compression Load                    | Mpa (kgf/cm <sup>2</sup> ) | —                     | 5.3 x 10 <sup>-2</sup> (0.54) | 3.1 x 10 <sup>-2</sup> (0.32) | 6.5 x 10 <sup>-2</sup> (0.66) | — <sup>(*)</sup>       |           |        | — <sup>(*)</sup>       |
| Continuous Use Temperature <sup>2</sup> | °C                         | -10-70                | -35-130                       | -40-130                       | -10-140                       | -70-200                |           |        | -20-230                |
| Abrasion Resistance                     |                            | Excellent             | Good                          | Good                          | Excellent                     | Acceptable             |           |        | Excellent              |
| Anti-Aging                              |                            | Good                  | Excellent                     | Excellent                     | Good                          | Excellent              |           |        | Excellent              |
| Water Resistance                        |                            | Acceptable            | Good                          | Good                          | Good                          | Good                   |           |        | Excellent              |
| Chemical Resistance                     | Oil (Gasoline)             | Good                  | Good                          | Poor                          | Excellent                     | Acceptable             |           |        | Excellent              |
|   | Acid                       | Poor - Acceptable     | Good                          | Poor - Good                   | Poor - Good                   | Acceptable - Good      |           |        | Excellent              |
|   | Alkali                     | Poor                  | Excellent                     | Good                          | Good                          | Excellent              |           |        | Acceptable - Good      |
|   | Organic Solvent            | Poor                  | Poor - Acceptable             | Poor                          | Poor - Acceptable             | Poor                   |           |        | Poor - Good            |

① For Adhesive Type, the adhesion strength decreases under high temperature (at approx. 80°C or more).

\*1 Compression Set <40% During Compression> (100°C/24 h) 29%

\*2 The temperature of continuous use is the temperature where long-term use does not cause a sharp decline in quality.

\*3 Compression Set <40% During Compression> (150°C/24 h) 8% (based on JIS K6250)

# Urethane & Rubber Sponge Sheets

continued

## A / B Dimension Configurable Type

| Part Number          | T  | A       | Available Types |         |         |         |         |
|----------------------|----|---------|-----------------|---------|---------|---------|---------|
|                      |    |         | B               |         |         |         |         |
|                      |    |         | 10-100          | 110-200 | 210-300 | 310-400 | 410-500 |
| No Adhesive<br>SGNNF | 10 | 10-100  | •               | —       | —       | —       | —       |
|                      |    | 110-200 | •               | •       | —       | —       | —       |
|                      |    | 210-300 | •               | •       | •       | —       | —       |
|                      |    | 310-400 | •               | •       | •       | •       | —       |
|                      |    | 410-500 | •               | •       | •       | •       | •       |
| Adhesive<br>SGNSF    | 30 | 10-100  | •               | —       | —       | —       | —       |
|                      |    | 110-200 | •               | •       | —       | —       | —       |
|                      |    | 210-300 | •               | •       | •       | —       | —       |
|                      |    | 310-400 | •               | •       | •       | •       | —       |
|                      |    | 410-500 | •               | •       | •       | •       | •       |
|                      | 50 | 10-100  | •               | —       | —       | —       | —       |
|                      |    | 110-200 | •               | •       | —       | —       | —       |
|                      |    | 210-300 | •               | •       | •       | —       | —       |
|                      |    | 310-400 | •               | •       | •       | •       | —       |
|                      |    | 410-500 | •               | •       | •       | •       | •       |

## A / B Dimension Configurable Type

| Part Number  | T  | A       | Available Types |         |         |         |         |
|--|----|---------|-----------------|---------|---------|---------|---------|
|  |    |         | B               |         |         |         |         |
|  |    |         | 20-100          | 110-200 | 210-300 | 310-400 | 410-500 |
| No Adhesive<br>SGNC<br>SGNW<br>SGNP<br>SGNB                    | 3  | 20-100  | •               | —       | —       | —       | —       |
|  |    | 110-200 | •               | •       | —       | —       | —       |
|  |    | 210-300 | •               | •       | •       | —       | —       |
|  |    | 310-400 | •               | •       | •       | •       | —       |
|  |    | 410-500 | •               | •       | •       | •       | •       |
|  | 5  | 20-100  | •               | —       | —       | —       | —       |
|  |    | 110-200 | •               | •       | —       | —       | —       |
|  |    | 210-300 | •               | •       | •       | —       | —       |
|  |    | 310-400 | •               | •       | •       | •       | —       |
|  |    | 410-500 | •               | •       | •       | •       | •       |
| No Adhesive<br>SGNA<br>SGNL<br>SGNF<br>SGNAA<br>SGNLA<br>SGNFA | 8  | 20-100  | •               | —       | —       | —       | —       |
|  |    | 110-200 | •               | •       | —       | —       | —       |
|  |    | 210-300 | •               | •       | •       | —       | —       |
|  |    | 310-400 | •               | •       | •       | •       | —       |
|  |    | 410-500 | •               | •       | •       | •       | •       |
| Adhesive<br>SGNCA<br>SGNWA<br>SGNPA<br>SGNBA                   | 10 | 20-100  | •               | —       | —       | —       | —       |
|  |    | 110-200 | •               | •       | —       | —       | —       |
|  |    | 210-300 | •               | •       | •       | —       | —       |
|  |    | 310-400 | •               | •       | •       | •       | —       |
|  |    | 410-500 | •               | •       | •       | •       | •       |
|  | 15 | 20-100  | •               | —       | —       | —       | —       |
|  |    | 110-200 | •               | •       | —       | —       | —       |
|  |    | 210-300 | •               | •       | •       | —       | —       |
|  |    | 310-400 | •               | •       | •       | •       | —       |
|  |    | 410-500 | •               | •       | •       | •       | •       |
|  | 20 | 20-100  | •               | —       | —       | —       | —       |
|  |    | 110-200 | •               | •       | —       | —       | —       |
|  |    | 210-300 | •               | •       | •       | —       | —       |
|  |    | 310-400 | •               | •       | •       | •       | —       |
|  |    | 410-500 | •               | •       | •       | •       | •       |
|  | 25 | 20-100  | •               | —       | —       | —       | —       |
|  |    | 110-200 | •               | •       | —       | —       | —       |
|  |    | 210-300 | •               | •       | •       | —       | —       |
|  |    | 310-400 | •               | •       | •       | •       | —       |
|  |    | 410-500 | •               | •       | •       | •       | •       |
|  | 30 | 20-100  | •               | —       | —       | —       | —       |
|  |    | 110-200 | •               | •       | —       | —       | —       |
|  |    | 210-300 | •               | •       | •       | —       | —       |
|  |    | 310-400 | •               | •       | •       | •       | —       |
|  |    | 410-500 | •               | •       | •       | •       | •       |

| Part Number                 | T  | A       | Available Types |         |         |         |         |
|-----------------------------|----|---------|-----------------|---------|---------|---------|---------|
|                             |    |         | B               |         |         |         |         |
|                             |    |         | 20-100          | 110-200 | 210-300 | 310-400 | 410-500 |
| No Adhesive<br>SGNA<br>SGNL | 2  | 20-100  | •               | —       | —       | —       | —       |
|                             |    | 110-200 | •               | •       | —       | —       | —       |
|                             |    | 210-300 | •               | •       | •       | —       | —       |
|                             |    | 310-400 | •               | •       | •       | •       | —       |
|                             |    | 410-500 | •               | •       | •       | •       | •       |
| Adhesive<br>SGNAA<br>SGNLA  | 3  | 20-100  | •               | —       | —       | —       | —       |
|                             |    | 110-200 | •               | •       | —       | —       | —       |
|                             |    | 210-300 | •               | •       | •       | —       | —       |
|                             |    | 310-400 | •               | •       | •       | •       | —       |
|                             |    | 410-500 | •               | •       | •       | •       | •       |
|                             | 5  | 20-100  | •               | —       | —       | —       | —       |
|                             |    | 110-200 | •               | •       | —       | —       | —       |
|                             |    | 210-300 | •               | •       | •       | —       | —       |
|                             |    | 310-400 | •               | •       | •       | •       | —       |
|                             |    | 410-500 | •               | •       | •       | •       | •       |
| No Adhesive<br>SGNF         | 10 | 20-100  | •               | —       | —       | —       | —       |
|                             |    | 110-200 | •               | •       | —       | —       | —       |
|                             |    | 210-300 | •               | •       | •       | —       | —       |
|                             |    | 310-400 | •               | •       | •       | •       | —       |
|                             |    | 410-500 | •               | •       | •       | •       | •       |
| Adhesive<br>SGNFA           | 2  | 20-100  | •               | —       | —       | —       | —       |
|                             |    | 110-200 | •               | •       | —       | —       | —       |
|                             |    | 210-300 | •               | •       | •       | —       | —       |
|                             |    | 310-400 | •               | •       | •       | •       | —       |
|                             |    | 410-500 | •               | •       | •       | •       | •       |
|                             | 3  | 20-100  | •               | —       | —       | —       | —       |
|                             |    | 110-200 | •               | •       | —       | —       | —       |
|                             |    | 210-300 | •               | •       | •       | —       | —       |
|                             |    | 310-400 | •               | •       | •       | •       | —       |
|                             |    | 410-500 | •               | •       | •       | •       | •       |
|                             | 5  | 20-100  | •               | —       | —       | —       | —       |
|                             |    | 110-200 | •               | •       | —       | —       | —       |
|                             |    | 210-300 | •               | •       | •       | —       | —       |
|                             |    | 310-400 | •               | •       | •       | •       | —       |
|                             |    | 410-500 | •               | •       | •       | •       | •       |
|                             | 10 | 20-100  | •               | —       | —       | —       | —       |
|                             |    | 110-200 | •               | •       | —       | —       | —       |
|                             |    | 210-300 | •               | •       | •       | —       | —       |
|                             |    | 310-400 | •               | •       | •       | •       | —       |
|                             |    | 410-500 | •               | •       | •       | •       | •       |

① SGNL and SGNLA are single side coated.