Conductive Double-Sided Tape

Lineup of conductive double-sided tape with structures originally developed by Seiren.

**Structure & Features**

**MST Series**

- **Cu + Ni**
- **PET**
- **Exposed conductive mesh**
- **Stable conductivity**

- Excellent grounding performance

- Conductive mesh provides excellent grounding performance.
- Available in 2 thicknesses: 30 and 50 μm.
- Light and UV permeability.

**Performance**

<table>
<thead>
<tr>
<th>Grade No.</th>
<th>MST30</th>
<th>MST50</th>
<th>Conventional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness (μm)</td>
<td>30</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Structure</td>
<td>Base material</td>
<td>Conductive mesh</td>
<td>Conductive mesh</td>
</tr>
<tr>
<td></td>
<td>Adhesive</td>
<td>Non-conductive</td>
<td>Non-conductive</td>
</tr>
<tr>
<td></td>
<td>Separator</td>
<td>PET</td>
<td>PET</td>
</tr>
<tr>
<td>Contact resistivity (mΩ/inch²)</td>
<td>2</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>180° peel strength (N/inch)</td>
<td>10</td>
<td>12</td>
<td>10</td>
</tr>
</tbody>
</table>

※Note that the figures for the parameters of each grade of the product in the table only represent their respective measured values, not their guaranteed values for the grade.

**Applications**

- FPC and board grounding
- EMI shielding
Black Conductive Gasket

Black gasket with metal uniformly applied inside.

Structure & Features

- Highly flexible, providing for use in a wide range of thickness.
- Having black metal uniformly applied to the inside of the foam, providing high grounding performance.
- Can be punched into various shape.
- Excellent compressive stress property.

Performance

<table>
<thead>
<tr>
<th>Grade No.</th>
<th>SIUB-5007AMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness (mm)</td>
<td>0.75</td>
</tr>
<tr>
<td>Usable range of thickness (mm)</td>
<td>0.15 – 0.6</td>
</tr>
<tr>
<td>Contact resistivity (mΩ/inch2)</td>
<td>30</td>
</tr>
<tr>
<td>Compression set (%)</td>
<td>9</td>
</tr>
<tr>
<td>Adhesive strength (N/inch)</td>
<td>11.5</td>
</tr>
</tbody>
</table>

Applications

The Seiren’s product finds its applications in:

- FPC and board grounding
- EMI shielding

Note that the figures for the parameters of each grade of the product in the table only represent their respective measured values, not their guaranteed values for the grade.
Sound Permeable Waterproof Film

Functional film with stable air/sound permeability and waterproof property, achieves waterproof ratings of IPX7 and IPX8 for mobile device cases.

**Structure & Features**

- Vacancy structure of soft porous film (Vacancy size: 15-30μm)
- **Highly waterproof** Provides IPX7/8 waterproof level for mobile device cases
- **Highly sound permeable** Available in 2 grades
- **Environment friendly** Complies with RoHS and REACH

**Performance**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>M3K30NW</th>
<th>M3K3001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Film thickness</td>
<td>μm</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Water resistance</td>
<td>kPa</td>
<td>50</td>
<td>80</td>
</tr>
<tr>
<td>Air permeability</td>
<td>sec/100cm²</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>Strength at break</td>
<td>N/inc</td>
<td>2.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Elongation at break</td>
<td>%</td>
<td>250</td>
<td>64</td>
</tr>
<tr>
<td>100% modulus</td>
<td>N/inc</td>
<td>1.0</td>
<td>Broken</td>
</tr>
<tr>
<td>10% modulus</td>
<td>N/inc</td>
<td>0.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Adhesion to waterproof tape</td>
<td>N/inc</td>
<td>Film broken</td>
<td>Film broken</td>
</tr>
</tbody>
</table>

Water resistance: Pursuant to JIS L 1092 Test Method for Water Resistance of Textiles (Hydrostatic Pressure Test), Method B (High Water Pressure) ※ Using mesh cover
Air permeability: Pursuant to JIS L 1096, Method B (Gurley Test Method) (equivalent to JIS P 8117, Method B)

The sound permeability of the film was measured by the method specially developed by Seiren for the measurement of the parameter with an sample opening of 1.2mm×2.0mm. (The measurement was made under an open system where the film underwent increased sound permeation loss in the low frequency range due to sound diffusion.)

※ The figures given for the parameters of the film in the table are their respective measured values, not their guaranteed values.

**Applications**

Can be used as sound permeable waterproof film or internal/external pressure control filters of:

- Mobile phones
- Smart phones
- Digital cameras
SEIREN has newly developed a highly air permeable vent filter for use with a case, housing or equipment required to be vented to control the pressure or temperature inside the equipment, while providing it with IPX8 level water resistance, as well as resistance to dust, oil, and solvent.

**SNAP VENT N90-6K**

The vent filter is designed for use with a case, housing or equipment required to be vented to maintain the stable venting of the equipment and control its inside pressure and temperature, while providing it with IPX8 level water resistance, as well as resistance to dust, oil, and solvent.

**Screw Vent NY-MK5A**

### Performance

<table>
<thead>
<tr>
<th>Grade No.</th>
<th>Color</th>
<th>Air permeability(mL/min)</th>
<th>IP rating</th>
<th>Water resistance(PSI)</th>
<th>Oil resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>N90-6K</td>
<td>Black</td>
<td>250</td>
<td>IP69K</td>
<td>30</td>
<td>Provided</td>
</tr>
<tr>
<td>NY-MK5A</td>
<td>Gray</td>
<td>700</td>
<td>IP69K</td>
<td>—</td>
<td>Provided</td>
</tr>
</tbody>
</table>

### Applications

The Seiren's vent filter finds its applications in:
- Various outdoor equipment
- LED illumination equipment
- Various communication equipment
- Solar panel housings
Micro Mesh

Dense micro mesh which copes with both air permeability and water repellency.

- Stable air/sound permeability with excellent dustproof performance.
- Water repellent finish on the surface prevents water invasion.
- Wide variety of color options.
- Can be designed with various mesh counts.
- Complies with RoHS, REACH and halogen-free requirements.

### Performance

<table>
<thead>
<tr>
<th>Grade No.</th>
<th>Mesh count</th>
<th>Yarn diameter</th>
<th>Opening size</th>
<th>Opening area ratio</th>
<th>Thickness</th>
<th>Air permeability</th>
<th>Specific airflow resistance (MKS UNITS)</th>
<th>Water repellency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yarns/inch</td>
<td>μm</td>
<td>μm</td>
<td>%</td>
<td>μm</td>
<td>cc/ft³/sec</td>
<td>pa * s/m</td>
<td></td>
</tr>
<tr>
<td>HF-510BH</td>
<td>477/510</td>
<td>31/26</td>
<td>23/22</td>
<td>19.5</td>
<td>48</td>
<td>155</td>
<td>94</td>
<td>5</td>
</tr>
<tr>
<td>HF-420BH</td>
<td>420</td>
<td>31</td>
<td>29</td>
<td>23</td>
<td>49</td>
<td>125</td>
<td>130</td>
<td>5</td>
</tr>
<tr>
<td>HF-380BH</td>
<td>380</td>
<td>31</td>
<td>33</td>
<td>26</td>
<td>45</td>
<td>165</td>
<td>86</td>
<td>5</td>
</tr>
<tr>
<td>HF-300BH</td>
<td>300</td>
<td>34</td>
<td>47</td>
<td>33</td>
<td>53</td>
<td>330</td>
<td>32</td>
<td>5</td>
</tr>
<tr>
<td>HF-280BH</td>
<td>280</td>
<td>34</td>
<td>55</td>
<td>38</td>
<td>55</td>
<td>420</td>
<td>22</td>
<td>5</td>
</tr>
</tbody>
</table>

*Note that the figures for the parameters of each grade of the product in the table only represent their respective measured values, not their guaranteed values for the grade.*

### Applications

Micro Mesh finds its applications in:
- Microphones and speakers for sound equipment
- Acoustic components requiring dust resistance, water repellency and sound quality improvement
- Various types of filters
Conductive Pattern Fabric

SEIREN has newly developed flexible conductive fabric with safe and stable electric properties for use in forming various conductive patterns, such as wiring patterns, on a substrate.

**Structure & Features**
- Thin, lightweight, and flexible
- Usable for various wiring patterns
- Highly conformable, accommodating elongation
- Having excellent waterproof and insulating properties

**Performance**

**Ampacity**
- Graph showing current (A) vs. temperature (°C) for silver paste printed fabric (15mm wide) and silver laminated fabric (20mm wide).

**Perspiration resistance**
- Graph showing current (mA) vs. current flow time (sec) with the note: "Seiren’s Conductive Pattern Fabric has been proved to remain safe when immersed in artificial perspiration solution under current flow."

**Voltage resistance**
- Graph showing maximum current (mA) vs. applied voltage (V) with the note: "Seiren’s Conductive Pattern Fabric has been proved to have stable electrical properties when evaluated for voltage resistance."

**Applications**
- The Seiren’s fabric finds its applications in:
  - Wiring for wearable devices
  - Wiring for sensors

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