Metal Mesh For Battery Current Collector

Introduction

The electrically active material comprising the electrodes of most modern battery designs are powders, slurries and laminates and require a mechanical support structure to hold them in place during the manufacturing process. This support structure also functions as a current collector and provides the electrical connection point for the external circuit. Current collectors of thin film batteries must be flexible, have high surface area, be cost-effective, and allow fluids to flow through them. Our metal mesh fits all these requirements and it is micro-permeable by design, therefore it allows the transport of the protons from the anode to the cathode through the membrane. It also forces the electrons to travel around a conductive path to the cathode, functioning as a key component in battery manufacturing. The metal mesh is manufactured in slit coils or sheets and is processed as discs or most any shape as required. We have been providing metal mesh for battery industry for 10 years. The common materials include stainless steel, nickel, aluminum, and copper etc.

<table>
<thead>
<tr>
<th>Idea for</th>
<th>Screen Size</th>
<th>Features &amp; Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium ion battery</td>
<td>D 2mm</td>
<td>Uniform thickness</td>
</tr>
<tr>
<td>Polymer battery</td>
<td>D 2.5mm</td>
<td>Highly reliable and offers moderate performance</td>
</tr>
<tr>
<td>Power battery</td>
<td>D 3mm</td>
<td>Long useful lifetime</td>
</tr>
</tbody>
</table>
Technical Parameters

When ordering, please specify:

1. **Shape**
   Round hole perforated metal, diamond hole expanded metal

2. **Hole Size**

3. **Thickness**

4. **Panel Width (PW)**

5. **Panel Length (PL)**

### Perforated Metal Sheets

<table>
<thead>
<tr>
<th>Shape type</th>
<th>Hole Size</th>
<th>Pitch</th>
<th>Open Area</th>
<th>Thickness</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>60° Round hole</td>
<td>2.0</td>
<td>3.0</td>
<td>40.3</td>
<td>0.3</td>
<td>1.41</td>
</tr>
<tr>
<td>60° Round hole</td>
<td>2.0</td>
<td>3.5</td>
<td>29.6</td>
<td>0.3</td>
<td>1.66</td>
</tr>
<tr>
<td>60° Round hole</td>
<td>2.5</td>
<td>3.5</td>
<td>46.3</td>
<td>0.3</td>
<td>1.27</td>
</tr>
<tr>
<td>60° Round hole</td>
<td>3.0</td>
<td>4.0</td>
<td>51.0</td>
<td>0.3</td>
<td>1.15</td>
</tr>
</tbody>
</table>

Branch
Web Wire Mesh Co., Ltd.-SJZ
NO 2701 CYC
Shijiazhuang City
Hebei, China
Tel: +86 0311 89255081
E-mail: zhao@webwirecloth.com
Website: www.webexpandedmetal.com

Anping Web Wire Mesh Co., Ltd.

Headquarters
Web Wire Mesh Co., Ltd.
No.12 Weier Rd.
EZD Industrial Park
Hebei, China
Tel: +86 0318 7568801
Fax: +86 0318 7568802
Website: www.webexpandedmetal.com