HILUMIN®
Ultra-clean nickel-plated steel

Tata Steel's HILUMIN® is an electrolytically nickel-plated, diffusion-annealed cold-rolled steel strip. Manufactured using an ultra-clean steel grade, it plays an integral part in the production of batteries.

HILUMIN® offers outstanding performance features. The consistent and reliable quality of this product also ensures trouble-free processing in high-volume, high-speed operations.

We have optimized HILUMIN® for the production of high-quality alkaline, lithium and rechargeable batteries. Diffusion annealing ensures an inseparable bond between the nickel layer and steel substrate. It also provides improved corrosion resistance and contact resistance. Tight process control ensures optimal consistency of the electroplated layer thickness.

Used by the world’s leading battery producers, HILUMIN® delivers significant benefits for processing operations. Tight dimensional tolerances and reliable mechanical properties make HILUMIN® ideal for high-speed, high-volume stamping and deep-drawing applications. Available as a batch-annealed or continuously-annealed product, HILUMIN® also offers good welding and brazing properties.

For added benefits, we can tailor HILUMIN® products to meet your exact processing and end-product requirements.

Production Process

Pickling → Cold Rolling → Plating

Slitting/Packaging

Temper Rolling

Annealing
HILUMIN®
Ultra-clean nickel-plated steel

Main benefits of HILUMIN® include:
- end-products of consistent and reliable quality
- optimized battery performance
- trouble-free, repeatable processing
- minimized waste
- extended tool life
- control of substrate and base metal properties

Applications
- Battery components: cans, covers, connector strips

Surface appearance

<table>
<thead>
<tr>
<th>Bright finish (BF): (Ra ≤ 0.2 μm)</th>
<th>very smooth surface</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dull finish: (Ra min 0.6 max. 2.5 μm)</td>
<td>matt surface</td>
</tr>
</tbody>
</table>

Delivery conditions

<table>
<thead>
<tr>
<th>Delivery condition</th>
<th>Thickness range</th>
<th>Plating thickness</th>
<th>Width range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A, LC, C290, C340, C390</td>
<td>2T, 3T, 4T, 5T</td>
<td>0.080 – 1.000 0.003 – 0.040</td>
<td>0,2 – 4.0 8 – 160</td>
</tr>
</tbody>
</table>

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