Copper Cathodes

NA-ESN | HK | OLEN | PIRDOP
Aurubis cathode brands “NA-ESN”, “HK”, “OLEN” and “PIRDOP” are registered at the LME and characterized by their high purity and consistent quality. These cathodes form the basis for high-grade Aurubis copper products.

### Facts & Figures

**Cathodes**

- **1.2**: million t of cathodes a year
- **4**: production sites in three European countries
- **1876**: the year when Aurubis was the first company in the world to apply the electrolysis method on a large industrial scale
- **4**: different copper brands with uniform and consistently high quality

### High purity and consistent quality

**AURUBIS CATHODES**

Aurubis copper brands “NA-ESN”, “HK”, “OLEN” and “PIRDOP” are registered at the LME and characterized by their high purity and consistent quality. These cathodes form the basis for high-grade Aurubis copper products.

### Dimensions

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>NA-ESN</th>
<th>HK</th>
<th>OLEN</th>
<th>PIRDOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (approx.)</td>
<td>965 mm</td>
<td>1060 mm</td>
<td>1005 mm</td>
<td>1000 mm</td>
</tr>
<tr>
<td>Width (approx.)</td>
<td>975 mm</td>
<td>906 mm</td>
<td>995 mm</td>
<td>1020 mm</td>
</tr>
<tr>
<td>Thickness (approx.)</td>
<td>5-10 mm</td>
<td>5-10 mm</td>
<td>5-10 mm</td>
<td>5-10 mm</td>
</tr>
<tr>
<td>Weight (approx.)</td>
<td>50-70 kg</td>
<td>50-70 kg</td>
<td>50-70 kg</td>
<td>50-80 kg</td>
</tr>
</tbody>
</table>

### Analysis of NA-ESN, HK, OLEN and PIRDOP Cathodes

**Minimum Copper Content 99.99 %**

<table>
<thead>
<tr>
<th>Pb</th>
<th>Bi</th>
<th>As</th>
<th>Sb</th>
<th>Sn</th>
<th>Zn</th>
<th>Fe</th>
<th>Ni</th>
<th>Co</th>
<th>Cr</th>
<th>Cd</th>
<th>Mn</th>
<th>Se</th>
<th>Te</th>
<th>Ag</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1</td>
<td>&lt;0.5</td>
<td>1</td>
<td>1</td>
<td>&lt;1</td>
<td>&lt;2</td>
<td>&lt;2</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>&lt;0.5</td>
<td>&lt;0.5</td>
<td>10-17</td>
<td>&lt;5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(data in ppm)

### Leading Copper Group Worldwide

Aurubis is a leading integrated copper group and the world’s largest copper recycler. We produce 1.2 million t of copper cathodes each year and from them a variety of copper products. Aurubis has about 6,300 employees, production sites in Europe and the USA and an extensive service and sales organization for copper products in Europe, Asia and North America.

Thanks to our wide range of services, we rank among the global leaders in our industry. Aurubis is oriented to growth and to increasing corporate value. The main focus of our strategy is on strengthening our business, utilizing growth opportunities and practicing a responsible attitude when dealing with people and handling resources and environmental issues.

Aurubis shares are part of the Prime Standard Segment of the Deutsche Börse and are listed in the MDAX, the European Stoxx 600 and the Global Challenges Index (GCX).
Production sites
of high-grade Aurubis Copper Cathodes

LÜNEN (Germany)
OLEN (Belgium)
HAMBURG (Germany)
PIRDOP (Bulgaria)

OUTSTANDING SERVICE
Aurubis offers its customers comprehensive commercial and technical services, geared entirely to the needs of our customers.

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AURUBIS CATHODES

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Our Copper for your Life

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