High - Grade Materials for the Irradiation - Industry

Heraeus is regarded worldwide as a leading supplier of materials used for irradiation purposes.

The exacting requirements and highest quality of Heraeus products ensure that Heraeus is the ideal partner for companies operating in this field. Our future-oriented technology and know-how in this area is available for the use of our customers.

Together with our customers we work out solutions suitable for diverse applications, using Heraeus know-how, Heraeus materials and Heraeus manufacturing techniques.

Heraeus:
Giving you the advantage

### Diverse Products for the Irradiation - Industry

<table>
<thead>
<tr>
<th>Materials</th>
<th>Purity</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iridium</td>
<td>99,9 % min. / 99,99 % min.</td>
<td>Discs / Pellets</td>
</tr>
<tr>
<td>Cobalt</td>
<td>99,7 % min.</td>
<td>Discs / Pellets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cylinder (all items available with electroplating Ni-layer µm-range)</td>
</tr>
<tr>
<td>Platinum - Platinum/Iridium</td>
<td>Pt 99,9 % min. / 99,99 % min.</td>
<td>Wire (0,3 - 0,6 mm dia.): Core Pt / Ir - alloy sheath Platinum</td>
</tr>
<tr>
<td></td>
<td>Ir 99,9 % min. / 99,99 % min.</td>
<td></td>
</tr>
<tr>
<td>Gold</td>
<td>Au 99,9 % min. / 99,99 % min.</td>
<td>Au-Seeds with Pt-sheath</td>
</tr>
<tr>
<td></td>
<td>Pt 99,9 % min. / 99,99 % min.</td>
<td></td>
</tr>
</tbody>
</table>

### Dimensions for Ir-Discs

<table>
<thead>
<tr>
<th>Tolerances</th>
<th>± 0,03 mm / +0,06 mm and others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical Diameters</td>
<td>from 0,500 mm to 4,00 mm</td>
</tr>
<tr>
<td>Typical Wide / Length</td>
<td>from 0,120 mm to 5,00 mm (other dimensions on request)</td>
</tr>
</tbody>
</table>

Other parts (Cobalt, Platinum - Platinum/Iridium, Gold) to customers design.

### Applications

- Radiographic Treatment
- Sterilisation
- Material - Testing
Weighing - System

For irradiation purposes, the mass of the components is the key-factor.

As a consequence, W. C. Heraeus has invested in a system, which is capable to finely sort batches into precise weight classifications.

This allows irradiation service providers to locate the discs in their reactor accordingly.

Stacking and achieving the precise mass of the required number of discs makes it easier to meet the exact radiation-output the end-user demands.

**Specification**

- Spoon-shaped balance with rotating mechanism
- Hitech software for measuring, protocolling and statistical evaluation and traceability
- Weighing-System: 0.1 mg precision
- Distribution over 7 weight-classifications is possible

**Advantages**

- Weight of each individual Ir-disc can be determined
- Enables Irradiation Service providers to pile/stack the necessary number of discs to meet the required radiation (Curie) value more precisely
- Display/Print out of weighing protocol of complete batch
- Ir-discs can be placed into the reactor proportionally to their mass
- Automatic sorting of Ir-discs into 7 weight-classifications

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The data given in this brochure are correct for September 2005. We reserve the right to make technical alterations as necessary.