• Electrode with **Cobalt, Chrome & Tungsten** for surfacing of parts which are subjected to a combination of metal/metal wear, corrosion and heat **up to 800°C** and shortly up to 1000°C.

• **Use for protection and repairs on valve seats, press & forging dies, bushings, bearings, hot shear knives, guillotine blades, moulds, mixer blades, screws, trimming tools and dies, knives pump sleeves, steam turbine blades, rotors etc.**

• **Exceptional resistance to corrosion, erosion, heat and impact**

• **High hot hardness values, will resist seizing & galling.**

• **Hardness : 40-45 HRC at 20 °C, 30 HRC at 600 °C**

• **Classification: EN 14700 : E Co2**

---

**Typical weld metal composition( % )**

<table>
<thead>
<tr>
<th></th>
<th>C</th>
<th>Si</th>
<th>Cr</th>
<th>V</th>
<th>Fe</th>
<th>Ni</th>
<th>Co</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1-2</td>
<td>1-2</td>
<td>28-30</td>
<td>&lt;0.2</td>
<td>3-4</td>
<td>&lt;0.5</td>
<td>Bal.</td>
</tr>
</tbody>
</table>

---

**Welding positions /Current**

1G/PA  2F/PH  2G/PC

---

**Packaging**

<table>
<thead>
<tr>
<th>Sizes</th>
<th>3.2x350</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kg Packet</td>
<td>5.0</td>
</tr>
<tr>
<td>Rods per Packet</td>
<td></td>
</tr>
<tr>
<td>Packets/carton</td>
<td>4</td>
</tr>
<tr>
<td>Kgs/carton</td>
<td>20</td>
</tr>
</tbody>
</table>

**Other sizes on request**

Also available as **FCAW (MIG), GTAW (TIG) WIRE & THERMAL SPRAY POWDER (PTA & LASER)**

---

**Disclaimer:** The information and data presented herein are typical or average values. Application suggested are made solely for the purpose of illustration to enable the reader to make his own valuation and are not intended as warranties.

Arcwel reserves the right to alter specification without further notice. **Health & Safety :**

Observe safety regulations (fumes). MSDS available on request  www.arcwel.com, E-mail : info@arcwel.at
• Welding alloy for repair and fabrication of Hot and Cold Working Tools and Dies. For repairs and build ups on dies made from materials such as M1, M2, M3, 1.3243, 1.3343, 1.3346, 1.3348 JIS SK D 11 and similar steels.
• For rebuilding and repair of cutting tools, knives, shear blades, punches etc.
• Extrusion moulds for copper, aluminium and zinc. Dies for pressure casting.
• Forging & deep drawing dies, manufacturing dies from lower alloy steels.
• Press tools, plastic extrusion screws and other parts.
• Excellent wear and impact resistance.
• Able to maintain hardness up to 550°C.
• Can be annealed tempered and heat treated.
• Industries: Automotive, Engineering, Recycling, Steelworks, Repair shops, Plastic and rubber processing, Forging shops etc.

Mechanical Properties (Typical)

<table>
<thead>
<tr>
<th>Hardness</th>
<th>Mat. No</th>
<th>EN 14700</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-50 HRC</td>
<td>1.2567</td>
<td>~Fe 3</td>
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</tbody>
</table>

Packaging and Welding Data

<table>
<thead>
<tr>
<th>Sizes Ø mm</th>
<th>3.2x350</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kg./Packet</td>
<td>5</td>
</tr>
<tr>
<td>Kg Carton</td>
<td>20</td>
</tr>
<tr>
<td>Amperage</td>
<td>90-110</td>
</tr>
</tbody>
</table>

Similar products for metal to metal wear and use with the following methods:
• GMAW (MAG) solid Wire in Ø 1.00, 1.2, 1.6 mm (ARCWEL 450 GMAW)
• TIG (GTAW) Wire in Ø 1.0, 1.2, 1.6, 2.0, 2.4, 3.2 (ARCWEL 450 GTAW)
• FCAW flux cored Wire Ø 1.2, 1.6 Datasheet available on request

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www.arcwel.com E-mail: info@arcwel.at
**ARCWEL 620 - SMAW (HRC 62)**  
**FOR TOOL AND DIE REPAIR , HARD-FACING**

- Special hard facing electrode with high-speed steel characteristics. Crack resistant deposit, high temperature oxidation resistance.
- Excellent cutting properties, high hardness.
- For rebuilding edges of cutting tools, knives, shear blades, drills, punching dies, press tools, plastic and rubber extrusion screws and other parts subjected to metal to metal wear.
- Suitable for use on most tool steels including SKD-4, SKD 11, 12, SKD 61 steels.
- Used extensively in the following industries: Automotive manufacturing, Engineering Job shops, Steel works, Forging, Tool and die making, Recycling.
- Low cost shear blades and cutting tools can be made by using a high carbon steel and then hard faced with ARCWEL 620.
- Hardness as welded: 60-63 HRC.

**Weld Metal Composition (%) typical / Classification : EN 14700 : E Fe 4**

<table>
<thead>
<tr>
<th>C</th>
<th>Si</th>
<th>Mn</th>
<th>Cr</th>
<th>V</th>
<th>W</th>
<th>Mo</th>
<th>W</th>
<th>Fe</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.8-1</td>
<td>0.4-0.8</td>
<td>0.4-0.8</td>
<td>4-6</td>
<td>1-2</td>
<td>1-2</td>
<td>9-11</td>
<td>1-2</td>
<td>base</td>
</tr>
</tbody>
</table>

**Form of Delivery / Packaging**

<table>
<thead>
<tr>
<th>Sizes</th>
<th>3.2x350</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kg/Box</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Boxes /carton</td>
<td>4</td>
</tr>
<tr>
<td>Kg/carton</td>
<td>20</td>
</tr>
</tbody>
</table>

**Welding positions**

- 1G/PA
- 2F/PA
- 2G/PC
- 3G/PA
- 4G/PE

**Current : AC/DC**

- = ± ~ 70V

**Other sizes are available on request**

If you want to use the GTAW (TIG) process, check data 7201.

**Disclaimer/Warranty .**

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