Harmony® 3

Silver-palladium-based casting alloy

Advantages
- Economical due to low density
- High stability
- Excellent handling characteristics
- Excellent polishing properties
- Suitable for bonding system and veneering composites

Technical data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>4</td>
</tr>
<tr>
<td>Color</td>
<td>white</td>
</tr>
<tr>
<td>Density (g/cm³)</td>
<td>10.6</td>
</tr>
<tr>
<td>Melting range (ºC)</td>
<td>880 – 960</td>
</tr>
<tr>
<td>Casting temperature (ºC)</td>
<td>1020 – 1050</td>
</tr>
<tr>
<td>Modulus of elasticity (MPa)</td>
<td>102.000</td>
</tr>
</tbody>
</table>

Vickers hardness
Annealed: 200
As cast: 230
Oven hardened: 225

0.2 % Proof stress (MPa)
Annealed: 350
As cast: 470
Oven hardened: 470

Elongation (%)
Annealed: 18
As cast: 14
Oven hardened: 13

Indication
Inlays, onlays, partial crowns, single crowns, telescope and conus crowns, posts, short- and long-span bridges

Composition:
- Pd: 25.9%
- Ag: 50.8%
- Cu: 13.8%
- Sn: 4.5%
- Zn: 1.2%
- Re: < 1.0%
- Mn: < 1.0%
- Au: 3.5%
- Mn: < 1.0%

Dental restorations fabricated by H.P. Oss, Innsbruck, Austria
Composition (wt. %)  

<table>
<thead>
<tr>
<th>Element</th>
<th>Harmony 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Au</td>
<td>3.5</td>
</tr>
<tr>
<td>Pd</td>
<td>25.9</td>
</tr>
<tr>
<td>Ag</td>
<td>50.8</td>
</tr>
<tr>
<td>Cu</td>
<td>13.8</td>
</tr>
<tr>
<td>Sn</td>
<td>4.5</td>
</tr>
<tr>
<td>Zn</td>
<td>1.2</td>
</tr>
<tr>
<td>Re</td>
<td>&lt; 1.0</td>
</tr>
<tr>
<td>Mn</td>
<td>&lt; 1.0</td>
</tr>
</tbody>
</table>

Properties

- Type: 4
- Color: white
- Density (g/cm³): 10.6
- Vickers hardness: 230
- Modulus of elasticity (MPa/Nmm²): 102,000
- 0.2 % Proof stress (MPa/Nmm²): 470
- Elongation (%): 14
- Melting range (°C): 880–960
- Casting temperature (°C): 1020–1050
- Crucible: ceramic / carbon
- Oven hardened °C / minutes: 400 / 30

Indication

- Veneering: SR Adoro
- Inlays
- Onlays / partial crowns X
- Crowns
- Short-span bridges
- Long-span bridges
- Telescope / conus crowns X
- Roots X

Solder

- Solder: LFWG / .585
- Laser welding wire: Laser C&B White

Certification

- CE: 0197
- ISO: 22674
- Biocompatibility: ✔

Answering Market Needs

Alloys containing gold represent the standard for precious materials in restorative dentistry. Even in very small quantities, gold improves alloy properties and remains a highly desired component. However, soaring costs can make the use of gold-containing alloys prohibitive for everyday restorative purposes. Harmony® 3 contains 3.5% gold—making it the ideal, cost-effective noble alternative to less precious gold-free casting alloys. What’s more, Harmony® 3 is an impressive economical choice because it demonstrates suitable low density and can be used for a wide range of indications, so laboratories can affordably satisfy their customers’ needs for gold-containing restorations.

Solid Joints

Harmony® 3 can be perfectly joined using the tried-and-tested solders from Ivoclar Vivadent, when indicated. Material testing has confirmed excellent diffusion between the alloy and the solder, so technicians can be assured of a stable joint.

Fine-Tuned Veneering Composite ...

SR Adoro® is a microfilled, light/heat-cured veneering composite for use with the Harmony® 3 alloy for full and partial veneers. Suitable for the fabrication of both metal-supported and metal-free restorations, SR Adoro has been fine-tuned to perfectly complement the Harmony® 3 alloy, creating restorations that are a reflection of beauty.

…and Bonding System Compatibility

To generate a sound, durable bond between the Harmony® 3 alloy and the SR Adoro veneering composite, SR Link – a metal-composite bonding agent – is recommended. Material science testing has demonstrated that excellent bonds are achieved.

Cementation

For conventionally cementing Harmony® 3 restorations, Ivoclar Vivadent recommends the use of Vivaglass® CEM glass ionomer cement or a self-adhesive luting composite. The dual-curing Multilink® Automix used in conjunction with the self-etching Multilink Primer is the ideal universal composite for adhesive cementation.