Material Information Heraenium S

Nickel-Chrome based alloy for ceramic bonding
(according to EN ISO 22674 und EN ISO 9693-1)

Chemical Composition (Content in mass %):

<table>
<thead>
<tr>
<th>Heraenium S</th>
<th>Ni</th>
<th>Cr</th>
<th>Mo</th>
<th>Si</th>
<th>Fe</th>
<th>Ce</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>62,9</td>
<td>23,0</td>
<td>10,0</td>
<td>2,0</td>
<td>1,5</td>
<td>0,6</td>
</tr>
</tbody>
</table>

This Dental Alloy is free of Beryllium, Cadmium and Lead.

Manufacturer:
Kulzer GmbH

Bio-compatibility:
We certify that this product has been evaluated according to the internationally valid directives EN ISO 7405, “Dentistry – Evaluation of biocompatibility of medical devices used in dentistry” and EN ISO 10993 series, “Biological evaluation of medical devices”. The evaluation covers, among other things, possible risk of cytotoxicity, allergisation, irritation, and genotoxicity. The studies conducted were carried out in independent testing facilities according to OECD directives and fulfill the requirements of GLP (Good Laboratory Practice). The evaluation proves the biological compatibility of this dental alloy.

Corrosion:
Corrosion testing was carried out at Kulzer’s testing facility according to the EN ISO 22674: „Dentistry - Metallic materials for fixed and removable restorations and appliances”. The directive stipulates a total release of metal ions from the metallic dental material of not more than 200 µg/cm² over 7 days at 37°C. The tested alloy showed a metal ion release of 6,0 µg/cm². This proves, it is a high corrosion resistant alloy.

Evaluation:
Based on the above test and evaluation, this alloy is classified as biocompatible (biologically compatible) when used as intended. A clinical evaluation proved that specified characteristics and performance related requirements are fulfilled.

Ceramic-compatibility:
According to the instruction for use, the dental alloy Heraenium S, with a CTE (25°C – 500°C) of 13,7 µm/mK can be considered as compatible to HeraCeram.

This alloy contains nickel and should not be used if the patient is known to be hypersensitive to nickel!

The conformity of Heraenium S with internationally valid directives is proven and certified by the Technical Control Board of Rheinland (CE 0197). This document is subject to an internal approval process. It was created electronically and is valid without signature.

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Giving a hand to oral health.