

NON PRECIOUS METAL ALLOYS FOR CROWN AND BRIDGEWORK

Heraenium P

CoCr non precious alloy

Non precious bonding alloy for conventional ceramics especially for HeraCeram acc. to EN ISO 9693 and 22674

Heraenium P has been developed for conventional ceramics such as HeraCeram and has optimum processing properties and high cobalt and chrome content.

Customers appreciate the good physical properties, which are reflected by the good polishability of the alloy. As a result, technicians achieve top-quality, aesthetic restorations more quickly. This alloy, which has a low coefficient of thermal expansion, has been clinically evaluated, is highly corrosion resistant and compliant with all the requirements of EN ISO 9693 and EN ISO 22674

Advantages

- Beryllium and cadmium free
- Wide indication range
- Very high corrosion resistance
- Easily polished
- CTE $_{(25-500^{\circ}\text{C})} = 13.8 \mu\text{m/m}\cdot\text{K}$

Indication

- Single crowns
- Small and long span bridgework
- Ceramics (HeraCeram) or composite (Signum) faced crowns and bridges

Delivery forms	Art. code
1 kg	6600 2217
250g	6600 2431



Technical data	
Composition (Content in mass %)	Co 59.0 Cr 25.0 Mo 4.0 W 10.0 Mn 0.8 Si 1.0 N 0.2
Type	5
Colour	white
Density (g/cm ³)	8.8
Melting range (°C)	Solidus, 1305 Liquidus 1400
Casting temperature	1550°C
Hardness (HV 10)	After ceramic firing, 330
0.2% yield strength (MPa)	After ceramic firing, 650
Tensile strength (MPa)	After ceramic firing, 910
Elongation (%)	After ceramic firing, 8
CTE $_{(25-500^{\circ}\text{C})}$ (µm/m•K)	13.8
Young's modul (GPa)	200

NON PRECIOUS METAL ALLOYS FOR CROWN AND BRIDGEWORK

Heraenium Pw

CoCr non precious alloy

Non precious bonding alloy for conventional ceramics especially for HeraCeram acc. to EN ISO 9693 and 22674

Advantages

- Heraenium Pw is a soft cobalt chromium bonding alloy for all indications.
- Optimum physical properties for exceptional processing
- Low hardness
- Easily milled and polished
- Easily trimmed due to low hardness value
- Beryllium and cadmium free
- Ideal for laser and solder techniques
- Very high corrosion resistance

Indication

- Single crowns
- Small and long span bridgework
- Ceramics (HeraCeram) or composite (Signum) faced crowns and bridges

Technical data	
Composition (Content in mass %)	Co 55.2 Cr 24.0 W 15.0 Fe 4.0 Si 1.0 Mn 0.8 N < 0.1
Type	after casting Typ 4; after ceramic firing Type 5
Colour	white
Density (g/cm ³)	8.2
Melting range (°C)	Solidus, 1320 Liquidus 1400
Hardness (HV 10)	After ceramic firing, 290
0.2% yield strength (MPa)	After ceramic firing, 530
Elongation (%)	After ceramic firing, 8
CTE (25-500°C) (µm/m•K)	14.3
Young's modul (GPa)	208

Delivery forms	Art. code
1 kg	6602 1871
250 g	6602 1872



NON PRECIOUS METAL ALLOYS FOR CROWN AND BRIDGEWORK

HeraeniumSun

**CoCr non precious universal alloy
for low fusing ceramic acc. to
EN ISO 22674 and 9693**

Heraenium Sun, the cobalt chromium bonding alloy for the HeraSun system, is optimally tailored to HeraCeram Sun. Due to its optimal physical properties it is very easy to prepare and ideal for all areas of application. It also has exceptional milling and polishing properties.

Advantages

- Tailored to HeraCeramSun
- Easily trimmed due to low hardness value
- Beryllium and cadmium free
- Laserable and solderable

Delivery forms	Art. code
1 kg	6602 0651
250g	6602 0652



Technical data	
Composition (Content in mass %)	Co 43.0 Fe 27.0 Cr 23.45 W 2.5 Mo 2.0 Si 1.0 Mn 0.8 N 0.15 C 0.1
Type	4
Colour	white
Density (g/cm ³)	8.2
Melting range (°C)	Solidus, 1290 Liquidus 1380
Hardness (HV 10)	After ceramic firing, 280
0.2% yield strength (MPa)	After ceramic firing, 490
Elongation (%)	After ceramic firing, 18
CTE (25–500°C) (µm/m•K)	16.2
Young's modul (GPa)	250

Please Note!

- CTE (25–500°C), 16.2 µm/m•K
- This alloy is only compatible with special low fusing, high expansion ceramics.
- Alloy for universal use, with the exception of “Major connectors.”
- Special HeraCeramSun Pre Opaque should be used instead of the Basic
- Opaque when facing Heraenium Sun.
- No oxide firing required!

NON PRECIOUS METAL ALLOYS FOR CROWN AND BRIDGEWORK

Heraenium NA

NiCr – non precious alloy

Nickel chromium bonding alloy for use with classic porcelains, in particular HeraCeram, and composites (Signum) acc. to EN ISO 9693 and 22674

Heraenium NA is a reliable nickel-chromium based non precious metal alloy, primarily indicated for fabricating frameworks for metal-ceramics and specifically for use with classic porcelains such as HeraCeram. The framework can also be veneered with composites.

Heraenium NA is free of beryllium and cadmium, exhibits good corrosion-resistance and is easily trimmed due to its minimal hardness. Especially when veneered with HeraCeram porcelain, aesthetic, high grade and dependable prosthetic restorations can be fabricated.

Heraeus Heravest Onyx and Moldavest exact investments are recommended for casting this alloy as they produce precisely fitting, smooth, fissure free castings.

Advantages

- High strength
- Beryllium free
- Cadmium free
- Optimum hardness
- CTE matched optimally to classic porcelains

Delivery form	Art. code
1 kg	6460 0957



Technical data	
Composition (Content in mass %)	Ni 59.3 Cr 24.0 Mo 10.0 Fe 1.5 Mn 1.5 Ta 1.5 Si 1.2 Nb 1.0
Type	4
Colour	white
Density (g/cm ³)	8.3
Melting range (°C)	Solidus, 1190 Liquidus 1300
Casting temperature (°C)	1450
Hardness (HV 10)	After casting, 190 After firing, 200
0.2% Yield strength (MPa)	After ceramic firing, 370
Tensile strength (MPa)	After ceramic firing, 710
Elongation (%)	After ceramic firing, 30
CTE _(25-500°C) (µm/m•K)	14.1
Young's modul (GPa)	222

Caution!

- These alloy contain nickel and must not be used for individuals with known nickel sensitivity.

NON PRECIOUS METAL ALLOYS FOR CROWN AND BRIDGEWORK

Heraenium S

NiCr – non precious alloy

Nickel chromium bonding alloy for use with classic porcelains, in particular HeraCeram, and composites (Signum) acc. to EN ISO 9693 and 22674

Heraenium S is a reliable nickel chromium based non precious metal alloy, primarily indicated for fabricating frameworks for metal-ceramics and specifically for use with classic porcelains such as HeraCeram.

The framework can also be veneered with composites.

Heraenium S is free of beryllium and cadmium, exhibits good corrosion-resistance and is easily trimmed due to its minimal hardness. Especially when veneered with HeraCeram porcelain, aesthetic, high grade and dependable prosthetic restorations can be fabricated.

Heraeus Heravest Onyx and Moldavest exact investments are recommended for casting this alloy as they produce precisely fitting, smooth, non fissured castings.

Advantages

- High strength
- Beryllium free
- Cadmium free
- Optimum hardness
- CTE matched optimally to classic porcelains

Delivery form Art. code

1 kg	6600 1900
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Technical data

Composition (Content in mass %)	Ni 62.9 Cr 23.0 Mo 10.0 Fe 1.5 Si 2.0 Ce < 1
Type	3
Colour	white
Density (g/cm ³)	8,2
Melting range (°C)	Solidus, 1200 Liquidus 1350
Casting temperature (°C)	1500
Hardness (HV 10)	After casting, 180 After firing, 200
0.2% Yield strength (MPa)	After ceramic firing, 335
Tensile strength (MPa)	After ceramic firing, 660
Elongation (%)	After ceramic firing, 23
CTE (25–500°C) (µm/m•K)	13.7
Young's modul (GPa)	224

Caution!

- These alloy contain nickel and must not be used for individuals with known nickel sensitivity.