



StarLoy®

Non-Precious-Metal Alloys

## More Veneering Safety

Brochure for Dental Lab

# More veneering safety. 3 alloys - 1 goal

StarLoy N, StarLoy C and StarLoy soft are three venerable non-precious metal alloys for the classic CTE range. You can choose what composition and physical properties are the best choices for you and your customers for a given indication. The developers of these three base-metal alloys were predomi-

nantly guided by a desire to create a material that is safe to veneer. The most critical step is the first opaque firing. An increased firing temperature and the optional use of NE Bonder ensure maximum adhesion between the alloy and the ceramic veneers.



StarLoy<sup>®</sup> N



StarLoy<sup>®</sup> C



StarLoy<sup>®</sup> soft

SAFE VENEERING WITH  
Duceram<sup>®</sup> Kiss | Ceramco<sup>®</sup> 3

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## Important note

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For best results, use only ceramic crucibles and new material when casting non-precious metal alloys. During finishing, make sure the framework is free of sharp edges. Sandblast the framework using 250 µm aluminium oxide at a pressure of 3-4 bar.

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# Reduced-hardness nickel-chromium alloy.

StarLoy N by Dentsply Sirona is the perfect supplement to the other members of the StarLoy line.

StarLoy N is very easy to finish and to mill thanks to its reduced hardness. In addition to its excellent mechanical properties, this alloy is characterized by its versatility in actual use. As a ceramic-bonding alloy, this material can

be veneered easy and safe using Duceram Kiss and Ceramco 3 ceramics.

An added benefit to the patient is that StarLoy N is free of beryllium. Its low thermal conductivity reduces discomfort caused by heat or cold and makes the restoration much more comfortable to wear.

## Dental laboratory benefits

- + Reduced hardness for easy finishing
- + Chromium and molybdenum component for high corrosion resistance
- + Very easy to veneer using Duceram Kiss or Ceramco 3

## Patient benefits

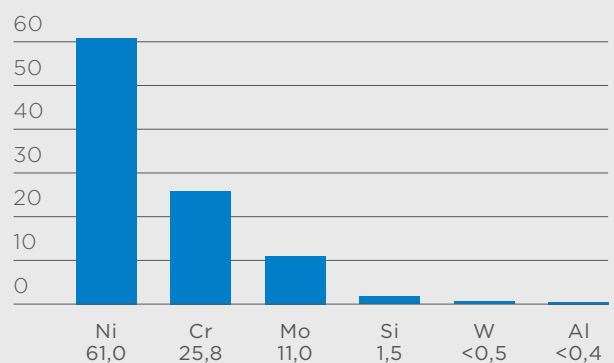
- + Contains no beryllium
- + Low thermal conductivity for high wear comfort



## Technical specifications

Melting range	1325 - 1350 °C
CTE 25 - 500 °C	13.8 µm/m·K
CTE 25 - 600 °C	14.4 µm/m·K
Density	8.2 g/cm <sup>3</sup>
Hardness	185 HV10
0,2% yield strength	340 N/mm <sup>2</sup>
Tensile strength	550 N/mm <sup>2</sup>
Elongation	26%
Elasticity modulus	115 GPa

## COMPOSITION (% by mass)



StarLoy N (250 g) - REF 53 3501 0250  
StarLoy N (1000 g) - REF 53 3501 1000

# The classic among the cobalt-chromium alloys.

StarLoy C is another building block of non-precious metal alloy for ceramic bonding techniques. This alloy was developed based on many years of experience and the most recent technologies. The result: an alloy with excellent material properties and fully in tune with the patient's wishes for a functional dental restoration that is well tolerated. StarLoy C is a highly corrosion-resistant non-

precious metal alloy on a cobalt-chromium basis, ideally suited for ceramic bonding with Duceram Kiss and Ceramco 3.

StarLoy C covers a broad range of prosthodontic solutions. Even difficult situations such as wide-span bridges, bars, adhesive bridges or implants can be mastered with StarLoy C without any problems.

## Dental laboratory benefits

- + Very safe bond with ceramics
- + High heat resistance
- + Suitable for laser welding
- + Ideal ceramic materials:  
Duceram Kiss and Ceramco 3

## Patient benefits

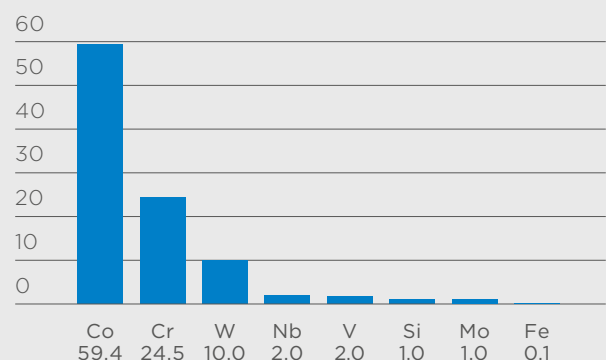
- + Contains no beryllium or nickel
- + High resistance to fracture and corrosion thanks to excellent strength
- + Resistant to the influences of the oral cavity and to discoloration



## Technical specifications

Melting range	1270 - 1370 °C
CTE 25 - 500 °C	14.0 µm/m·K
CTE 25 - 600 °C	14.3 µm/m·K
Density	8.8 g/cm <sup>3</sup>
Hardness	330 HV10
0,2% yield strength	630 N/mm <sup>2</sup>
Tensile strength	790 N/mm <sup>2</sup>
Elongation	3%
Elasticity modulus	200 GPa

## COMPOSITION (% by mass)



StarLoy C (250 g) - REF 53 3501 0015

StarLoy C (1000 g) - REF 53 3501 0014

# Reduced-hardness cobalt-chromium alloy.

StarLoy soft is a cobalt-chromium alloy characterized by reduced hardness and excellent veneering safety. This veneering safety is mainly owed to a completely novel alloy composition. The main ingredients of this alloy are cobalt, chromium, iron and tungsten.

With its high tungsten content of more than 16%, StarLoy soft exhibits a highly uniform.

thermal behaviour especially when used with the Duceram Kiss and Ceramco 3 veneering ceramics. Enjoy the dual benefits of this alloy: Easy processing. Safe veneering.

## Dental laboratory benefits

- + No oxide firing required
- + Low hardness (280 HV10) for less instrument wear and tear
- + High strength for delicate framework designs
- + Easy to finish, mill and polish

## Patient benefits

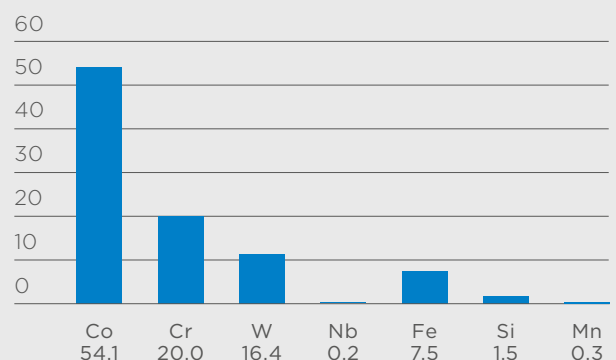
- + High corrosion resistance = high biocompatibility
- + Low thermal conductivity for high wear comfort
- + Contains no beryllium or nickel



## Technical specifications

Melting range	1390 - 1410 °C
CTE 25 - 500 °C	14.6 µm/m·K
CTE 25 - 600 °C	14.9 µm/m·K
Density	9.1 g/cm <sup>3</sup>
Hardness	280 HV10
0,2% yield strength	550 N/mm <sup>2</sup>
Tensile strength	710 N/mm <sup>2</sup>
Elongation	12%
Elasticity modulus	200 GPa

## COMPOSITION (% by mass)



StarLoy soft (250 g) - REF 53 3501 0035  
StarLoy soft (1000 g) - REF 53 3501 0034

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