



# Safe Processing and Ceramic Bonding

A new cobalt-chromium alloy within the Dentsply alloy system



[www.dentsply-degudent.com](http://www.dentsply-degudent.com)

## StarLoy® soft

The ceramic-bonding cobalt-chromium alloy for use with StarLight Ceram® veneering ceramics

Dentsply has succeeded in developing a cobalt-chromium alloy offering new benefits for dentists and dental technicians alike. Its processing parameters set new standards in the field of non-precious dental alloys. For example, the bond between the veneering material and the alloy has been fine-tuned and optimized. The high reliability of the StarLight Ceram® ceramic veneer on StarLoy soft is one of the most important advantages. No oxide firing is required for StarLoy soft. A significant reduction in the hardness value of StarLoy soft has been achieved; it is now only 280 HV10, which drastically reduces the need for expensive diamond or carbide burs. At the same time, the high strength of StarLoy soft permits very delicate crown and bridge framework designs, leaving more volume for natural-looking veneers. The frameworks are easy to finish, mill and polish. The melting and casting properties of the alloy are excellent – regardless of whether you use a high-frequency casting unit, an arc-casting appliance or an open flame. StarLoy soft is carbon-free and easily laser-welded and soldered.

### Dental Laboratory Benefits:

- Reliable veneers thanks to the alloy's nearly linear expansion behaviour
- Reduced hardness
- Easy to finish
- Easy to mill
- Easy to polish
- Soldering possible before firing
- No oxide firing required
- Easy to solder and easy to laserweld
- May be processed in high-frequency casting units, arc-casting appliances or by open flame
- Excellent melting and casting properties

### Patient Benefits:

- Excellent biocompatibility thanks to high corrosion resistance
- Contains no beryllium or nickel
- Resistant to the influences of the oral cavity and to discolouration
- Inexpensive
- Extraordinary wearing comfort thanks to low thermal conductivity (hot and cold sensation)

### Technical Data:

Composition in	mass-%
Co	54,1
Cr	20,0
W	16,4
Nb	0,2
Fe	7,5
Si	1,5
Mn	0,3
Melting range (°C)	1390–1410
CTE (25–500 °C)	14,6
CTE (25–600 °C)	14,9
Density (g/cm <sup>3</sup> )	9,1
Hardness (HV10)	280
0,2%-Yield strength (N/mm <sup>2</sup> )	550
Tensile strength (N/mm <sup>2</sup> )	710
Elongation (%)	12
Elasticity modulus (GPa)	200

Further information:  
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### Supply form:

- 53 3501 0034: StarLoy soft 1000 g
- 53 3501 0035: StarLoy soft 250 g
- 53 3501 2535: StarLoy soft laser welding wire 5 pieces

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