Colado® NC

Nickel-Chromium Ceramic Alloy

Colado NC is a predominantly base metal alloy that features coordinated mechanical and physical properties for use in conjunction with conventional metal-ceramic and composite materials.

Ni	Cr	W	Si	Al	Mo	La
65.6	20.1	7.1	3.3	2.4	1.3	<1.0

Advantages

- **Light oxide**
- **High temperature strength for accurately fitting restorations**
- **CTE value is coordinated with conventional metal-ceramics for the layering and the press technique**
- **No long-term cooling necessary**
- **High strength values; thus optimally suitable for long-span restorations**
- **Suitable for bonding systems and veneering composites (e.g. SR Link / SR Adoro)**

Indications

Onlays, 3/4 crowns, ceramic crowns, crowns, telescopic and conus crowns, posts, short-/long-span bridges, partial dentures, implant superstructures

Technical data

Colour	white
Type	5
Density (g/cm³)	8.2
Melting interval (°C)	1230–1325
Casting temperature (°C)	1390–1445
CTE 25–500 °C	14.0
Elongation (%)	12.0
Modulus of elasticity (MPa/Nmm²)	196.000
Oxide firing °C/min./vacuum	980 / 1 / vacuum
Vickers hardness	340
0.2% proof stress (MPa)	640

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Certificate

Test material: Colado® NC

Composition in mass %	Ni	Cr	W	Si	Al	Mo	La
Colado® NC	65.5	20.1	7.1	3.3	2.4	1.3	<1.0

Manufacturer

Ivoclar Vivadent AG, Bendererstrasse 2, FL-9494 Schaan, Liechtenstein

Corrosion resistance

The test was conducted according to the international regulations ISO 1562 and ISO 6871: static immersion test through analytical determination of the metal ion release after a 7-day immersion.

Result: The metal ion release of 7 days of immersion was not significant.

Testing facility: University of Mississippi Medical Center, 2500 North State Street Jackson, MS 39 216-4505

Cytotoxicity

The Agar Diffusion test determines the biological reactivity of cell culture on test material.

Result: The test material is considered non-cytotoxic and meets the requirements of the Agar Diffusion test according to ISO 10993-5.

Testing facility: Toxikon Corporation, 15 Wiggins Avenue, Bedford, Massachusetts

Mutagenicity

An Ames assay was conducted to determine any possible cancer potential.

Result: No mutagenicity potential was found to exist in these alloys.

Kligman Maximization

This test evaluated the allergenic potential and/or sensitizing capacity of these alloys.

Result: Based on the standards set by the study protocol, these alloys exhibited no reaction of the challenge (0 % sensitization).

Sensitivity of oral mucosa

Test to determine the contact sensitivity of these alloys at the buccal oral mucosa.

Result: No reactions were noted in conjunction with these alloys.

Testing facility: Toxikon Corporation, 15 Wiggins Avenue, Bedford, Massachusetts

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