

# d.SIGN<sup>®</sup> 15



## Nickel-Chrome ceramic alloy

Its mechanical and physical properties are coordinated with the d.SIGN fluorapatite-leucite glass-ceramic material.

<b>Ni</b> 58.7	<b>Cr</b> 25.0	<b>Mo</b> 12.1	<b>Si</b> 1.7	<b>Fe</b> 1.9	<b>Co</b> <1.0	<b>Ce</b> <1.0
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### Advantages

- Easy casting and processing
- Reduced hardness
- Excellent high temperature strength
- Certified biocompatibility
- Newest addition to the d.SIGN alloy line

### Indication

PFM crowns, telescope and conus crowns, posts, short and long span bridges

### Technical data

Colour	white
Type	3
Density (g/cm <sup>3</sup> )	8.3
Melting range (°C)	1300 - 1360
Casting temperature (°C)	1415 - 1475
CTE 25 - 500 °C	13.9
CTE 20 - 600 °C	14.2
Elongation (%)	13.0
Modulus of elasticity (MPa/Nmm <sup>2</sup> )	200.000
Oxide firing °C / minutes / vacuum	950 / 1 / no vacuum
Vickers hardness	230
0.2 % proof stress (MPa/Nmm <sup>2</sup> )	340



# Certificate

## Test material: d.SIGN® 15

Composition in % weight	Ni	Cr	Mo	Si	Fe	Co	Ce
<b>d.SIGN® 15</b>	58.7	25.0	12.1	1.7	1.9	<1.0	<1.0

### Manufacturer

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

### Corrosion resistance

The test was conducted according to the international regulations of ISO 1562 and ISO 6871-1: static immersion test through analytical determination of the metal ion release after a 7-day immersion.

**Test results:** The metal ion release after 7 days of immersion was not significant.

**Testing facility:** Louisiana State University, Dr. Sakar

### Cytotoxicity

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

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

### Sensitivity of oral mucosa

Test to determine the contact sensitivity of the d.SIGN 15 alloy at the buccal oral mucosa.

**Test results:** No reactions were noted in conjunction with d.SIGN 15.

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

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