

# DENERTIA<sup>®</sup> N19 DENTAL ALLOY

## TECHNICAL DATA

### Nominal Composition (mass %)

Ni	Cr	Mo	C	Co	Fe	Si	Nb	Other
Balance	24	9.5	Max. 0.05	Max. 1.0	Max. 1.0	< 2.0	< 1.0	Max. 0.50

\* This alloy is Beryllium and Cadmium free as defined by ISO 22674

**DENERTIA<sup>®</sup> N19** is a low-carbon nickel based porcelain-bonding alloy for the manufacture of dental crowns and bridges.

### Nominal Properties (as-cast)

<b>Proof Stress (Rp0.2)</b>	360-480 MPa	
<b>Ultimate Tensile Strength</b>	640-700 MPa	
<b>Tensile Elongation</b>	> 13 %	
<b>Elastic Modulus</b>	≈ 170 GPa	
<b>Vickers Hardness (HV<sub>30</sub>)</b>	200	
<b>Density</b>	8.2 g/cm <sup>3</sup>	
<b>Thermal expansion coefficient</b>	14.1 μm/m.°C	(25-500°C)
<b>Melting Range (heating)</b>	1300-1370°C	<b>(depends on heating or cooling rate)</b>
<b>Solidification Range (cooling)</b>	1260-1270°C	<b>(depends on heating or cooling rate)</b>

This alloy shall only be used by properly qualified and experienced personnel and should not be used outside of the scope of its intended use as defined herein, and as per established acceptable practice in the dental profession. Deloro Stellite takes no responsibility for any aspect of the processing of this alloy. Health & Safety Data can be obtained from the package insert or MSDS.

The Quality System of Deloro Stellite U.K. for the manufacture of dental alloys has been accredited to ISO 13485 and conforms to the requirements of Annex V of the Medical Devices Directive 93/42/EEC (Notified Body No. 0088). DENERTIA<sup>®</sup> N19 meets the Essential Requirements of Annex 1 of MDD 93/42/EEC.

### DENERTIA is a Trade Name of Deloro Stellite.

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