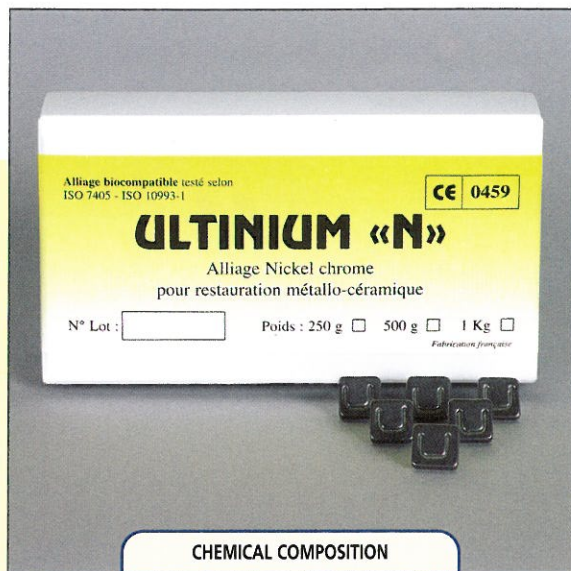


CE 0459

Nickel-chromium alloy for porcelain work.



CHEMICAL COMPOSITION

Ni	Cr	Mo	Si	Others < 1
63,3	23,5	8,75	1,6	C, Mn, Y, Fe

PROPERTIES

Specific gravity	8.1	g/cm <sup>3</sup>
Casting temperature – Solidus	2 140	°F
Liquidus	2 335	°F
Hardness Vickers	200	(HV)
Modulus of elasticity	26 100	Ksi
0,2 % yield strength	44 500	Psi
Ultimate tensile strength	87 000	Psi
Percent elongation	8	%
Coefficient of expansion from 32 to 1,110°F	8	µK-1

PACKAGINGS / REFERENCES

Packaged in sealed boxes of :	References
1000 G	ME 10 22
500 G	ME 10 220
250G	ME 10 221

# Ultinium N

Absolutely free of beryllium, this nickel base alloy gives very fluid melts and perfect porcelain bonding, making it suitable for crown and bridge works as well as porcelain restoration.

COATING

Use a special coating free of graphite (Type Totem – Totem Vectral Ultima – Isitak – Tantak). Heat the cylinder to 900°C (1650° F). Maintain it at this temperature for 15 to 30 minutes according to the size of the cylinder and let it air cool.

MELTING AND CASTING

Melting of Ultinium N alloy is performed in a clean crucible. It can be achieved by high or medium frequency induction, or by oxyacetylene or oxypropane flame. In the case of melting by flame, the flame has to be adjusted to a neutral and a non recarburing state.

Melting by induction: start casting as soon as the ingots are sinking.

Melting by flame: heat the ingots by giving a rotary motion to the flame and start casting as soon as the bath begins to vibrate under the flame. Let the cylinder air cool down to the ambient temperature and shake the cast-part out.

PREPARING THE PART

Proceed as per the conventional way, by scraping and grinding the asperities of the part. Sand blast under high pressure the surface on which the porcelain is to be applied with an abrasive mixture composed of aluminium oxide at 50/60 microns. Ultrasonically clean the part for 5 to 10 minutes in distilled water.

DEGAZIFYING-OXYDING

If such a processing is required, place the part in the furnace at a temperature of 960°C (1760°F). Create a vacuum and increase the temperature to 1020°C (1870°F). Then break the vacuum and let it cool down. After cooling, the cast-part has to show a slight greenish scale. The opaque procedure is then applied on the surface by baking it according to the manufacturer's instructions.

The Ultinium N alloy has been the subject of positive tests with the main porcelain sources.

PROPERTIES

They are in accordance with ISO 6871-2 – ISO 9693 – NFS 91-249 DIN 13912-2  
Manufactured according ISO 9002 – EN 46002  
Biocompatible alloy tested according ISO 7405 – ISO 10993-1

Ultima guarantees optimum properties during initial melting of its virgin dental alloys.

Ultima declines all responsibility in the following cases:

- Remelting of in ingot tops for recycling dental mechanic
- Mixing of several heats or grades by the dental mechanic when preparing a melting charge.

Warning : this alloy must not be used for patients who are allergic to nickel.