英語版　17-07

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Nickel-Chrome Based Alloy for Porcelain

ZEOMETAL-Ni

INSTRUCTIONS FOR USE

【Indications】

This product is Nickel-Chrome Based Alloy for the fabricatio dental porcelain restorations and appliances after casting. crowns and bridges.

【Contraindications and Prohibitions】

NOTE: This alloy contains nickel. DO NOT USE this product on patients who have a history of allergy such as irritation to nickel.

NOTE: Do not use on patients with a history of allergy to the elements contained in this product.

【Shapes, Composition and Product Specifications】

(1) Shape

Square Prisms

(2) Composition

Element	Mass (%)
Ni	63.4
Cr	23.8
Mo	9.4
Si	2.9
Fe, Nb, Zr	0.5

(3) Product Characteristics

Items	Requirement
Type	Type 3
Proof Strength	320 MPa
Elongation	8%
Density	7.1 g/cm^3
Liquidus Point	1330°C
Solidus Point	1230°C
Coefficient of Thermal Expansion	14.0 ×10^{-6} K^{-1}(25-500°C) 14.1 ×10^{-6} K^{-1}(50-500°C)

Test Method: ISO22674: 2006

Specification Item	Properties
Adhesion	25 MPa and more

Test Method: ISO9693-1: 2012

【Intended Use and Effect/Efficacy】

This product is intended to be used for the fabrication of dental restoration, dental prosthesis and dental appliances.

【Instructions for Use】

(1) Wax-Up

Perform Wax-up in accordance with normal practice.

(2) Spruing

Use a Ø2 to 3 mm long feeder sprue.

(3) Investing

Phosphate-based investment is used with a moisture ceramic ribbon to invest.

(4) Preheating

Burn out the wax selecting the hold time for about 30 minutes at 830-850°C.

(5) Melting and casting

Use a reducing flame burned oxygen / propane or oxygen / natural gas, and melt the alloy as quickly as possible. Cast this after ensuring that the alloy has completely melted.

*Do not use fluxes.

*A suitable crucible should be used.

*Do not overheat. Cool down the casting mold to room temperature before taking out of the chamber.

(6) Metal treatment and cleaning

After removing the investment by sandblasting, finish with a ceramic point. Then, alumina-sandblast (approx. 50 μm, 0.2 to 0.25 MPa) and carry out ultrasonic cleansing for about 5 to 10 min.

(7) Build-up and firing of porcelain

Use porcelain with a suitable C.T.E. for the product.

Follow the manufacturer's instructions for build-up and firing.

(8) Finishing

Finish in accordance with normal practice..

[In case of soldering]

In cases where pre-soldering or post-soldering are needed, carry out in accordance with normal practice

[Precautions]

(1) Avoid casting work in a closed space and equip the workspace with a partial ventilator or a ventilation fan in order to avoid inhaling fine particles and evaporates.

(2) Use a local dust-absorbing equipment and a dust protective mask which is approved by local regulations in order to avoid inhaling fine particles of the product while grinding.

(3) Wear safety glasses while melting, heating, cutting and grinding this product in order to prevent damage to the eyes.

(4) In cases where blowholes appear in the casting material, do not use it.

(5) Do not re-melt/recast this product. Use always new alloy.

(6) Use this product only for stated.

(7) Only qualified dental staff are allowed to use this product.

(8) Dental staff who have a history of allergy to this product or similar ingredients must use protective equipment to prevent direct skin contact with the product.

(9) Do not mix with other alloys.

【Important Basic Cautions】

(1) Do not use on patients with a history of allergy to this product or to the elements contained to this product; symptoms include irritation or rash.

(2) If any signs of allergy, such as irritation or rash, appear in a patient, stop using this product immediately and have the affected patient seek medical attention.

(3) Dental staff who have a history of allergy to this product or to the alloys contained in this product, with symptoms such as irritation or rash, must not use this product.

Stop using this product if any signs of irritation or rash appear and seek medical attention immediately.

[Side Effect]

Rash may be caused by dental metal or by tardive metal allergies such as pustulosis palmoplantaris, lichen planus or dermatitis.

【Storage Method】

This product must be stored and managed only by certified personnel, without uncertified personnel being allowed to handle them.

【Package】

1,000 g

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