# Instructions for use & technical data
# CopraBond S

## Technical data

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|---|---|
| **Manufacturer:** | Whitepeaks Dental Solutions GmbH & Co. KG<br>Langeheide 9 - 45239 Essen - Germany |
| **Product/ Product type:** | Metal alloy blanks for the production of individual dental restorations |
| **Product form:** | Metal blanks in different diameter and thickness |
| **Material type:** | Cobalt/ chrome alloy (type 4) – medical device class IIa |
| **Circle of users:** | Instructed users who produce individual dental restorations |

## Indication/ intended use

CopraBond S is exclusively suitable for the production of dental products.

Indication

- anatomical reduced copings and pontics in anterior and posterior area
- bridges up to 14 units or bridges with small diameters
- primary and secondary telescopic crowns
- clasps, bars and retention constructions
- full anatomical crowns and bridges in anterior and posterior area
- restorations with small diameters which are exposed to high forces
- free end bridge constructions with maximum 1 pontic
- supra constructions for implant cases
- removable prosthesis

CopraBond S is a type 4 co/cr alloy.

## Contraindikation

Do not use in case of proven hypersensitivity against the alloy or one of its components.

## Veneer ceramics

Co/cr veneering porcelain

## Material properties / technical data

composition:

| | |
|---|---|
| **Co** | 66% +/- 2% |
| **Cr** | 27% +/- 2% |
| **Mo** | 6,0% +/- 1% |
| **Si** | < 1,0% |
| **Mn** | < 1,0% |

mechanical properties:

| | |
|---|---|
| **yield strength 0,2%** | ~ 396 MPa |
| **elongation at break in percent** | ~ 11,0 % |
| **tensile strength** | ~ 678 MPa |
| **density** | ~ 8,4 g /cm³ |
| **corrosion resistance** | < 200 µg /cm² |
| **tarnish resistance** | yes |
| **Vickers hardness** | ~ 255 HV 10 |
| **coefficient of thermal expansion** | 14,3 x 10 -6 K1 |

## Specification

CopraBond S is a nickel- and beryllium free cobalt/ chrome blank, specially designed for CAD/CAM applications.
The material is very homogenous and easy to mill, also it is suitable for laser welding.

## Instructions for use

### Removal of frameworks

Cut out and smoothen the surfaces of milled frameworks with carbide burs or separating discs. Please use the same cutter for one alloy to avoid contamination.

### Veneering with ceramic

The minimum thickness of the prepared coping should not be less than 0.3 mm. It´s recommended to sandblast the frames with minimum 110 µm of aluminium oxide with 3-4 bar and clean with steam cleaner. Oxide firing is not mandatory but can be done as an option for 5 minutes at 980 °C with vacuum (cleaning firing). The frame needs to be sandblasted with aluminium oxide with about 110 µm and 3-4 bar to remove the present oxide layer thoroughly. In the end the cleaning by steam cleaner is mandatory. If you use a ceramic bonder please consider the instructions for use of the manufacturer.

## Soldering
We recommend a chrome cobalt soldering metal for soldering. CopraBond S frames should not be soldered with gold or palladium solders. CopraBond S is easy to weld with a dental laser.

## Safety instructions
Warning: Dust from CopraBond S can lead to skin/ eye irritation and damage the lung. Always wear a facemask (filter class FFP3), protective gloves and goggles while processing CopraBond S blanks. Turn on the extraction system with a filter class Hepa H at all times. Avoid contact with mucous membranes.

## Storage
No special storage conditions

## Disposal
See safety data sheet.

## Explanation of the markings on the packaging

| REF | Symbol for „item number" |

**REF**        Symbol for „item number"

**LOT**        Symbol for „LOT number"

**CE₀₄₈₃**     Confirmation: The product complies with the applicable European directives.

(box symbol)   Symbol for „number of products in package"

(IFU symbol)   Symbol for „follow the instructions for use"

**Rx only**    Symbol for "Caution: US Federal law ristricts this device to sale by or on the order of a licensed physician or dentist."