Instructions for use & technical data
CopraBond K

technical data	date of issue: 12/20/2017
manufacturer:	Whitepeaks Dental Solutions GmbH & Co. KG Langeheide 9 - 45239 Essen - Germany
product / product type:	**metal** alloy blank for manufacturing dental restorations
product shape:	metal discs in different diameter and thickness
material type:	cobalt / chrome alloy (type 4)
CE-mark:	C€0483
users:	educated users who manufacture dental restorations with CAD/CAM milling systems
veneering porcelain:	co/cr veneering porcelain (e.g. Vita*, Ivoclar*, DeTrey Dentsply*, Wieland*, Noritake* Wohlwend*, Ducera*, Ceramco*, etc.) the names marked with a * are registered names or trademarks of the respective manufacturers,
contra indikation:	do not use in case of proven allergy or hypersensitivity agains the alloy or its components.

composition:		mechanische Eigenschaften	
Co	59,0% - 63,0%	**yield strength 0,2%**	~ 360 – 484 MPa
Cr	27,0% - 29,0%	**percentage elongation**	> 2 - 16 %
W	8,0% - 9,0%	**tensile strength**	~ 400 - 900 MPa
Mn	0,15% - 0,35%	**density**	~ 8 – 9 g /cm³
Fe	0,0% - 0,5%	**corrosion resistance**	< 200 gμ cm²
Si	1,5% - 1,8%	**tarnish-proofness**	ja
C	0,0% - 0,1%	**vickers hardness**	~ 270 - 450 HV 10/30

description
CopraBond K is a nickel- and beryllium free chrome-cobalt blank, specially designed for CAD/CAM applications.
The material is very homogenous and lends itself to machining extremely good - either by milling or laser welding.

instructions for use:

removal of frameworks
Cut out, fettle 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 porcelain
The minimum thickness of the prepared coping should not be less than 0.3 mm. It s recommended to sandblast the frames with minimum 125 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 125 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 instruction for use of the manufacturer.

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

cleaning
Please clean framework made from CopraBond K by steam cleaning or in distilled water by using an ultrasonic unit.

polishing
Remove oxides after firing by blasting with gloss pearls.
Finish with rubber stones and polishing paste.