

# ADOR- Non-precious Alloys



Cast alloys,  
SLM dental powder &  
dental mill blanks!



**ADOR**

DENTAL SOLUTIONS

[www.ador-dental.de](http://www.ador-dental.de)

# » High-quality non-precious alloys – naturally made in Germany

We stick to the quality. Ador-Edelmetalle has always stood for high-quality precious and non-precious alloys – made in Germany. The best production standards and the highest requirements for processability and compatibility guarantee you a perfect product.

Thanks to our cooperation with one of the few European dental material producers which supply also a lot of our competitors we are able to offer you the best possible quality for a reasonable price. Recognised metallurgists ensure a consistently absolute purity.

Dental alloys. Value for money.

## ADORBOND® CC



### Cobalt-chrome bonding alloy for high-melting ceramic compounds

- Free of nickel, beryllium and gallium
- Without cytotoxic potential
- Unhindered processing
- Suitable for large spans
- Excellent price-performance ratio
- Tested biocompatibility
- Very good ceramic bond strength
- Low hardness 285 HV

Co 62,5% · Cr 24,6% · Mo 2,9% · W 8,5% · Si 1,3%  
Elements < 1%: Nb, Mn, Fe, N

## ADORBOND® CN



### Nickel-chrome bonding alloy for high-melting ceramic compounds

- Free of beryllium
- Proven biocompatibility
- Extremely low hardness
- Very easy finishing
- Long-cooling is not required
- Also suitable for artificial veneers
- Very good ceramic bond strength
- Suitable for large spans
- Excellent price-performance ratio

Ni 62,7% · Cr 24,4% · Mo 11,0% · Si 1,6%  
Elements < 1%: Fe, Mn, Nb

## ADORBOND® CC PLUS



### Multi-purpose CoCr bonding alloy for all conventional ceramics

- Real classics
- Proven adhesive bond with ceramic
- Pourable by all melting methods
- Simple finishing and easy polishing after casting
- Also suitable for laser-welding
- Easy oxide removal after ceramic firing
- Proven global quality
- Biocompatible/Biokompatibel

Co 63,6% · Cr 24,8% · Mo 5,0% · W 5,5% · Si 1,1%  
Elements < 1%: Mn, Fe, Nb

## ADORON® FH



### Spring allround modeling cast alloy

- Free of nickel
- Superior strength, high spring rate and good elongation at break
- Universally applicable for all areas of modeling cast technique
- Laser weldable
- Unhindered processing
- Proven biocompatibility
- Excellent price-performance ratio

Co 62,5% · Cr 30,0% · Mo 5,1% · Si 1,0% · Mn 1,0%  
Elements < 1%: C, N, Nb, Fe

## ADORBOND® PREMIUM



### Multi-purpose CoCr bonding for all conventional ceramics

- With a special composition
- Proven adhesive bond with ceramic
- Pourable by all melting methods
- Easy finishing due to the lower hardness
- Simple finishing and easy polishing after casting
- Also suitable for laser-welding
- Easy oxide removal after ceramic firing
- Proven global quality
- Best-in-class
- Biocompatible

Co 59,5% · Cr 24,8% · Mo 4,7% · W 5,9% · Ga 4,2%  
Elements < 1%: Si, Mn, Fe, Nb

## ADORON® LX



### Laserable high-quality modeling cast alloy

- Free of nickel
- Superior strength, high spring rate and good elongation at break
- Universally applicable for all areas of modeling cast technique
- Perfect for laser welding
- Unhindered processing
- Proven biocompatibility
- Excellent price-performance ratio
- Without cytotoxic potential

Co 62,5% · Cr 29,5% · Mo 5,5% · Si 1,3%  
Elements < 1%: Mn, C, N, Nb, Fe

# » Cast, mill, laser fusion

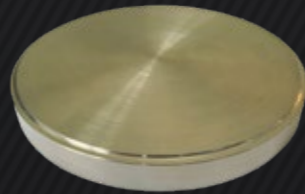
## ADORBOND® BC BLANK

### Cobalt-chrome mill blank

- Free of nickel, beryllium, cadmium and gallium
- Without cytotoxic potential
- Unhindered processing
- Excellent price-performance ratio
- Tested biocompatibility
- Very good ceramic bond strength
- Low hardness 290 HV

CTE 14,4 (20–600°C) · Co 61,7% · Cr 27,8% · W 8,5% · Si 1,6% · Elements < 1%: Fe, Mn, Nb, N

ADORBOND® BC BLANK	
THICKNESS	ITEM NUMBER
8mm x 98,5mm	7408
10mm x 98,5mm	7410
12mm x 98,5mm	7412
13,5mm x 98,5mm	7414
15mm x 98,5mm	7415
18mm x 98,5mm	7418
20mm x 98,5mm	7419
24mm x 98,5mm	7421



# » Your benefits

## Our attitude

Since the foundation of Ador-Edelmetalle we have laid a great emphasis on the further development of our products according to the current market needs. Our alloys have been customized in conformity with the special market and processing requirements in cooperation with the leading dental metalworking producers. An optimal price-performance ratio is always the top priority for Ador-Edelmetalle.

## Consulting on the highest level

We would like to make your working environment as simple and comfortable as possible applying many practical ideas. The competence of our medical product consultants is available to you from Monday to Friday from 8:30 am to 5:00 pm. We will be happy to accept your order or to answer any questions you may have regarding using our products. For a personal consultation at your premises please make an appointment.

## Outstanding quality of products

With our CE-certified alloys you have all the prerequisites for a high-quality dental technical work. Here you can find an appropriate alloy cater to all your individual requirements. We maintain a certified quality management system for manufacturing our medical products according to EN ISO 13485. You can therefore be sure that all the materials which you and the patient come into contact with have been fundamental tested and approved.

## The best price

In addition to our excellent conditions we permanently have attractive offers that provide you with real economic advantages. Please contact your medical product consultant for further information.

## Speed

We always have all the articles of our extensive product range at stock. Thus if you order by 4:30 pm, your purchase will be shipped at the same day.

Technische Daten	ADORBOND®	ADORBOND®	ADORBOND®	ADORBOND®	ADORON®	ADORON®	ADOR	ADOR	ADORBOND®
(Richtwerte):	CC	CC PLUS	PREMIUM	CN	LX	FH	CC-LOT	NEM-LASERDRAHT	BC BLANK
Color	white	white	white	white	white	white	white	white	white
Density (g/cm³)	8,3	8,2	8,6	8,2	8,2	8,2	8,3	8,3	8,4
Vickers hardness (HV10)	285	320	280	180	365	375	–	–	290
CTE 25–500 °C (10 <sup>-6</sup> K <sup>-1</sup> )	13,9	14,3	14,0	13,9	–	–	–	–	14,1
CTE 20–600 °C (10 <sup>-6</sup> K <sup>-1</sup> )	14,0	14,5	14,2	14,0	–	–	–	–	14,4
Melting interval (°C)	1.304–1.369	1.360–1.420	1.310–1.405	1.250–1.340	1.295–1.345	1.260–1.320	1.140-1.210	ca. 1.350	1.310–1.400
Casting temperature (°C)	ca. 1.470	ca. 1.500	ca. 1.550	ca. 1.440	1.450	ca. 1.440	–	–	ca. 1.520
Yield point R <sub>0,2</sub> (MPa)	490	460	530	330	640	620	–	–	400
Tensile strength (N/mm²)	–	–	–	–	880	920	–	–	–
Elastic modulus (N/mm²)	ca. 210.000	ca. 200.000	ca. 225.000	ca. 205.000	ca. 220.000	ca. 220.000	–	–	ca. 195.000
Elongation at break A <sub>5</sub> (%)	10	12	14	15	7,5	4,5	–	–	8

Composition in %::	ADORBOND®	ADORBOND®	ADORBOND®	ADORBOND®	ADORON®	ADORON®	ADOR	ADOR	ADORBOND®
	CC	CC PLUS	PREMIUM	CN	LX	FH	CC-LOT	NEM-LASERDRAHT	BC BLANK
Cobalt (Co)	62,5	63,6	59,5	–	62,5	62,5	62,0	65,2	61,7
Nickel (Ni)	–	–	–	62,7	–	–	–	–	–
Chrome (Cr)	24,6	24,8	24,8	24,4	29,5	30,0	29,5	27,7	27,8
Tungsten (W)	8,5	5,5	5,9	–	–	–	–	–	8,5
Molybdenum (Mo)	2,9	5,0	4,7	11,0	5,5	5,1	4,5	5,8	–
Silicon (Si)	1,3	1,1	–	1,6	1,3	1,0	3,0	–	1,6
Iron (Fe)	–	–	–	–	–	–	–	–	–
Niobium (Nb)	–	–	–	–	–	–	–	–	–
Gallium (Ga)	–	–	4,2	–	–	–	–	–	–
Elements < 1%	Nb, Mn, Fe, N	–	Fe, Si, Mn, Nb	Nb, Mn, Fe	Mn, C, N, Nb, Fe	Mn, C, N, Nb, Fe	Fe, Mn, C, B	Fe, Si, Mn, N	Mn, Fe, Nb, N

Delivery options:	ADORBOND®	ADORBOND®	ADORBOND®	ADORBOND®	ADORON®	ADORON®	ADOR	ADOR
	CC	CC PLUS	PREMIUM	CN	LX	FH	CC-LOT	NEM-LASERDRAHT
5g							√	√
1.000g	√	√	√	√	√	√		

## ADOR CC-LOT

- Universal solder for ADORBOND® CC, CN and ADORON® FH, LX in bar form ø 1,5 mm x ca. 75 mm long
- Suitable for all non-precious alloys

Co 62,0% · Cr 29,5% · Si 3,0% · Mo 4,5% · Elements < 1%: B, C, Fe, Mn

## ADOR NEM-LASER WIRE

- Suitable for all non-precious alloys
- Available in two thicknesses: ø 0,5 mm, ø 0,35 mm

Co 65,2% · Cr 27,7% · Mo 5,8% · Elements < 1%: Si · Mn · Fe · N

## » 24-hour order service

- Via e-mail at [bestellung@ador-dental.de](mailto:bestellung@ador-dental.de)
- Online at [www.ador-dental.de](http://www.ador-dental.de)

We are gladly accepting your orders anywhere, anytime!

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Thanks to our cooperation with one of the few European dental material producers which supply also a lot of our competitors we are able to offer you the best possible quality for a reasonable price. Recognised metallurgists ensure a consistently absolute purity.

Dental alloys. Value for money.

**NEW! - specifically made for model casting**

## ADORBOND CC PLUS POWDER

Cobalt-based dental model casting alloy  
10-30 µm & 15-45 µm, type 5

composition in %: Co 63,6 · Cr 24,8 · W 5,5 · Mo 5,0 · Si 1,1 elements < 1%: Fe, Mn, Nb



ADORBOND® CC PLUS is a cobalt-based dental metal-ceramic alloy. ADORBOND® CC PLUS powder is free of nickel, cadmium, beryllium and lead and conforms to EN ISO 22674 type 5 for applications where parts of the appliance require a combination of high stiffness and yield strength, e.g. thin removable partial dentures, parts with thin cross-sections and clasps. ADORBOND® CC PLUS can be used both as a model casting alloy and as a metal-ceramic alloy and is available in two grain sizes: 10-30 µm and 15-45 µm.

## ADORBOND BC POWDER

Cobalt-based dental model casting alloy  
10-30 µm & 15-45 µm, type 5

composition in %: Co 61,7% · Cr 27,8% · W 8,5% · Si 1,6% · elements < 1%: Fe, Mn, Nb, N



ADORBOND® BC Powder is a cobalt-based dental metal-ceramic alloy. ADORBOND® BC Powder is free of nickel, cadmium, beryllium and lead and conforms to EN ISO 22674 type 5 for applications where parts of the appliance require a combination of high stiffness and yield strength, e.g. thin removable partial dentures, parts with thin cross-sections and clasps. ADORBOND® BC powder can be used both as a model casting alloy and as a metal-ceramic alloy and is available in two grain sizes: 10-30 µm and 15-45 µm.

Technical Data:	ADORBOND® CC PLUS Powder		ADORBOND® BC Powder	
	10-30	15-45	10-30	15-45
Particle Size (µm)	10-30	15-45	10-30	15-45
Density (g/cm <sup>3</sup> )	8,2	8,2	8,4	8,4
Vickers Hardness (HV10)	520	320	395	290
WAK 25–500 °C (10 <sup>-6</sup> K <sup>-1</sup> )	14,3	14,3	14,1	14,1
WAK 20–600 °C (10 <sup>-6</sup> K <sup>-1</sup> )	14,5	14,5	14,4	14,4
Melting interval (°C)	1.360–1.420	1.360–1.420	1.310-1.400	1.310-1.400
Firing Temperature T <sub>Bz,max</sub> (°C)	980	980	980	980
Yielding Strength R <sub>p0,2</sub> (MPa)	1020	1120	780	880
Modulus of elasticity E (GPa)	ca. 275.000	ca. 200.000	ca. 230.000	ca. 195.000
Tensile elongation at break A <sub>5</sub> (%)	5,0	4,0	11,0	8,0

### PROCESSING RECOMMENDATION

Avoid dust formation when opening the packaging, during transport and when filling the powder into the SLM system! Shake well before use! Use an SLM system matched to the grain size of ADORBOND® CC/ BC/ CC PLUS powder and carry out framework fabrication in accordance with the instructions for use of the SLM system.

### SAFETY INSTRUCTIONS FOR DENTAL POWDER

Metal dust is harmful to health. Use suction when handling the powder, finishing and blasting. Hypersensitivities to components of the alloy must be taken into account. In case of suspected incompatibilities to individual elements of this alloy, it should not be used.

# About us

Ador-Edelmetalle GmbH has been supplying the German dental market with top-quality dental alloys for over 25 years. As a competent and innovative partner of dental and practice laboratories we offer dental alloys for all fields of activities. We have our own production facilities of non-precious products being one of the few European manufacturers of the specialization. Moreover, we offer other interesting products for the dental market.

Our customers are vitally important to us that is why we are always willing to meet your individual needs quickly

and straightforward. That is why you are in safe hands with us.

Our competent medical product consultants guarantee you an individual support directly on site.

**Ador-Edelmetalle. Just value for money.**

Further information you can find at:  
[www.ador-dental.de](http://www.ador-dental.de)



Further information you can find at [www.its-for-kids.de](http://www.its-for-kids.de)

## Social engagement

As founder and the main sponsor of the "It's for Kids" charity fund we have been engaged ourselves in helping abused, exploited, neglected or otherwise deprived children since 20 years. Social engagement is essential to us and this mind-set can be observed in all our activities.

In 2000, Rainer Koch, Managing Director of Ador-Edelmetalle GmbH and now the chairman of the "It's for Kids" charity fund, founded his desired project in order to help maltreated, exploited and disadvantaged children. He wanted to protect those who are not able do it for themselves.

Being a charity organisation for children "It's for Kids" the fund is formed from creative, active and financial donations from across the whole Germany. "It's for Kids" is not a standalone sponsorship, it is a charity organisation which redirects monetary resources to various children's aid projects directly.

Should you have any questions relating to our social engagement do not hesitate to contact us.

