

ADOR- Non-precious Alloys



Cast alloys,
SLM dental powder &
dental mill blanks!



www.ador-edelmetalle.de

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

ADORBOND® CC



Cobalt-chrome bonding alloy for high-melting ceramic compounds

- Free of nickel, beryllium and gallium
- Without cytotoxic potential
- Unhampered 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® 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

ADORBOND® PREMIUM



Multi-purpose CoCr bonding alloy 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

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® 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

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
- Unhampered 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

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
- Unhampered 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

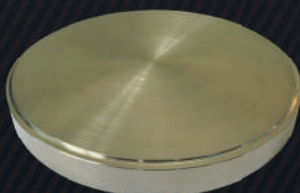
ADORBOND® CC BLANK

Cobalt-chrome mill blank

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

CTE 14,0 (20–600 °C) · Co 62,0 % · Cr 25,0 % · Mo 3,0 % · W 8,0 % · Si 1,0 % · Elements < 1 %: Fe, Ce

ADORBOND® CC BLANK	
THICKNESS	ITEM NUMBER
8mm x 98,5mm	7208
10mm x 98,5mm	7210
12mm x 98,5mm	7212
13,5mm x 98,5mm	7214
15mm x 98,5mm	7215
18mm x 98,5mm	7218
20mm x 98,5mm	7220



ADORBOND® BC BLANK

Cobalt-chrome mill blank

- Free of nickel, beryllium, cadmium and gallium
- Without cytotoxic potential
- Unhampered processing
- Excellent price-performance ratio
- Tested biocompatibility
- Very good ceramic bond strength
- Low hardness 285 HV

CTE 14,4 (20–600 °C) · Co 61,7 % · Cr 27,8 % · W 8,5 % · Si 1,6 %

ADORBOND® BC BLANK	
THICKNESS	ITEM NUMBER
8mm x 98,5mm	7208
10mm x 98,5mm	7210
12mm x 98,5mm	7212
13,5mm x 98,5mm	7214
15mm x 98,5mm	7215
18mm x 98,5mm	7218
20mm x 98,5mm	7220



Technische Daten	ADORBOND®	ADORBOND®	ADORBOND®	ADORBOND®	ADORON®	ADORON®	ADORBOND®	ADOR	ADOR
(Richtwerte):	CC	CC PLUS	PREMIUM	CN	LX	FH	CLF	CC-LOT	NEM-LASERDRAHT
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	8,2	8,3	8,3
Vickers hardness (HV10)	285	320	280	180	365	375	320	–	–
CTE 25–500 °C (10 ⁻⁶ K ⁻¹)	13,9	14,3	14,0	13,9	–	–	15,9	–	–
CTE 20–600 °C (10 ⁻⁶ K ⁻¹)	14,0	14,5	14,2	14,0	–	–	16,1	–	–
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	1.280–1.345	1.140–1.210	ca. 1.350
Casting temperature (°C)	ca. 1.470	ca. 1.500	ca. 1.550	ca. 1.440	1.450	ca. 1.440	1.450	–	–
Yield point R _{0,2} MPa	490	460	530	330	640	620	580	–	–
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 ₅ (%)	10	12	14	15	7,5	4,5	10	–	–

Composition in %:	ADORBOND®	ADORBOND®	ADORBOND®	ADORBOND®	ADORON®	ADORON®	ADORBOND®	ADOR	ADOR
	CC	CC PLUS	PREMIUM	CN	LX	FH	CLF	CC-LOT	NEM-LASERDRAHT
Cobalt (Co)	62,5	63,6	59,5	–	62,5	62,5	33,3	62,0	65,2
Nickel (Ni)	–	–	–	62,7	–	–	–	–	–
Chrome (Cr)	24,6	24,8	24,8	24,4	29,5	30,0	30,0	29,5	27,7
Tungsten (W)	8,5	5,5	5,9	–	–	–	–	–	–
Molybdenum (Mo)	2,9	5,0	4,7	11,0	5,5	5,1	5,0	4,5	5,8
Silicon (Si)	1,3	1,1	–	1,6	1,3	1,0	1,1	3,0	–
Iron (Fe)	–	–	–	–	–	–	29,0	–	–
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	C, N, Nb	Fe, Mn, C, B	Fe, Si, Mn, 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	✓	✓	✓	✓	✓	✓		

Our blank
ted for y
standard
ADORBO

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

» 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 at 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.

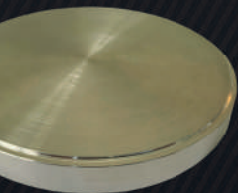
Speed

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.

NK

nt price-performance ratio
biocompatibility
ood ceramic bond strength
ardness 290 HV

% · Elements < 1 %: Fe, Mn, Nb, N



ADORBOND®	ADORBOND®
CC BLANK	BC BLANK
white	white
8,3	8,4
285	290
13,9	14,1
14,0	14,4
1.304–1.369	1.310–1.400
ca. 1.470	ca. 1.520
490	400
–	–
ca. 210.000	ca. 195.000
10	8

ADORBOND®	ADORBOND®
CC BLANK	BC BLANK
62,5	61,7
–	–
24,6	27,8
8,5	8,5
2,9	–
1,3	1,6
–	–
–	–
–	–
Fe, Nb, Mn, N	Mn, Fe, Nb, N

s can be individually adap-
our requirements. For all
sizes please refer to our
ND® CC BLANKS tables.

» 24-hour order service

- By e-mail at bestellung@ador-edelmetalle.de
- Online at www.ador-edelmetalle.de

We are gladly accepting your orders
anywhere, anytime!

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



ADORBOND CC

dental metal-ceramic alloy based on cobalt,
10-30 µm, type 5

ADORBOND® CC Powder 10-30µm is a dental partial denture alloy based on cobalt.

ADORBOND® CC Powder 10-30 µm is free from nickel, cadmium, beryllium and lead and fulfils the standards of EN ISO 22674 type 5 for appliances in which parts require the combination of high stiffness and strength, e.g. thin removable partial dentures, parts with thin cross-sections and clasps. ADORBOND® CC Powder 10-30 µm can be used as a partial denture alloy as well as a metal-ceramic alloy.



ADORBOND CC

dental metal-ceramic alloy based on cobalt,
15-45 µm, type 5

ADORBOND® CC Powder 15-45µm is a dental partial denture alloy based on cobalt.

ADORBOND® CC Powder 15-45 µm is free from nickel, cadmium, beryllium and lead and fulfils the standards of EN ISO 22674 type 4 for appliances in which parts require the combination of high stiffness and strength, e.g. thin removable partial dentures, parts with thin cross-sections and clasps. ADORBOND® CC Powder 15-45 µm can be used as a partial denture alloy as well as a metal-ceramic alloy.

Technical Data:	ADORBOND® CC Pulver		ADORBOND® CC PLUS Pulver	
Particle Size (µm)	10-30	15-45	10-30	15-45
Density (g/cm ³)	8,3	8,3	8,2	8,2
Vickers Hardness (HV10)	515	285	520	320
WAK 25–500 °C (10 ⁻⁶ K ⁻¹)	13,9	13,9	14,3	14,3
WAK 20–600 °C (10 ⁻⁶ K ⁻¹)	14,0	14,0	14,5	14,5
Melting interval (°C)	1.304–1.369	1.304–1.369	1.360–1.420	1.360–1.420
Firing Temperature T _{Br,max} (°C)	980	980	980	980
Yielding Strength R _{p0,2} MPa	1047	1068	1020	1120
Modulus of elasticity E (GPa)	ca. 171.000	ca. 236.000	ca. 275.000	ca. 200.000
Tensile elongation at break A ₅ (%)	2,4	2,8	5,0	4,0

Composition in %:	ADORBOND® CC Pulver	ADORBOND® CC PLUS Pulver
Cobalt (Co)	62,5	63,6
Chromium (Cr)	24,6	24,8
Tungsten (W)	8,5	5,5
Molybdenum (Mo)	2,9	5,0
Silicon (Si)	1,3	1,1
Elements < 1%	Nb, Mn, Fe, N	Nb, Mn, Fe

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 PLUS

dental partial denture alloy based on cobalt, 10-30 µm, type 5

ADORBOND® CC PLUS is a dental partial denture alloy based on cobalt. ADORBOND® CC Powder 10-30 µm is free from nickel, cadmium, beryllium and lead and fulfils the standards of EN ISO 22674 type 5 for appliances in which parts require the combination of high stiffness and strength, e.g. thin removable partial dentures, parts with thin cross-sections and clasps. ADORBOND® CC Powder 10-30 µm can be used as a partial denture alloy as well as a metal-ceramic alloy.



ADORBOND CC PLUS

dental metal-ceramic alloy based on cobalt, 15-45 µm, type 5

ADORBOND® CC PLUS Powder is a dental metal-ceramic alloy based on cobalt. ADORBOND® CC Powder is free from nickel, cadmium, beryllium and lead and fulfils the standards of EN ISO 22674 type 4 for appliances with thin sections that are subject to very high forces, e.g. removable partial dentures, clasps, thin veneered crowns, wide-span bridges or bridges with small cross sections, bars, attachments and implant retained superstructures.

PROCESSING RECOMMENDATION

Powder metallurgy is a descendant of metallurgy, which is essentially concerned with the production of metal powders and their further processing. The manufacturing process is characterized by the mechanical compaction of metal powders in molding tools or pressing and sintering of the blank at high temperatures or hot rolling to form an ingot.

The result is solid, finegrained semi-finished or finished parts.

SAFETY INSTRUCTIONS FOR DENTAL POWDER

Metal dust is harmful to health. Use suction when handling the powder, nishing 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-edelmetalle.de



Further information you can find at 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 to 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.

