

## Model Cast Alloy on Cobalt Basis

## ecoNEMcast

acc. to DIN EN ISO 22674

<b>Item no.</b>	7390 3 001
<b>Delivery form</b>	Cylinder Ø 8,0 x 15 mm
<b>Indication</b>	Creation of abutments and telescopes as well as tertiary constructions within the implant technique; model casting
<b>Description</b>	<ul style="list-style-type: none"> <li>- Spring hard model cast alloy on cobalt basis</li> <li>- High resistance to corrosion</li> <li>- Bio-compatible, as free of nickel and beryllium</li> <li>- Due to the low carbon content, excellent suited for laser welding</li> <li>- High flowing-capacity, easy melting-on, good results in brightness</li> <li>- Easy shaping and preparation due to reduced surface hardness</li> </ul>

QM-System certified according to DIN EN ISO 13485 for medical products



Type	Colour	Density g/cm <sup>3</sup>	Composition Mass contents in %								
			Co	Cr	Mo	W	Mn	C	Si	Fe	others
5	White	8.3	62.5	28.8	6.1	0.65	0.65	0.18	0.38	0.4	<0.1

### Technical data

Vickers hardness HV 10/30	0,2 % proof stress MPa	Elongation A5 %	Modulus of elasticity MPa	Melting range °C	Pre-heating temp. °C	Casting temp. °C
330	555	8.6	185.000	1370-1404	950-1050	1504

### Instruction for use

## Instruction for use ecoNEMcast

### 1. Modelling

Fabricate the cast model in the usual way. For spruing normally 2 spruing channels with a thickness of 3 – 3,5 mm are sufficient. These channels are smoothly fixed in the most solid parts of the modelling.

### 2. Investment

Any commercial phosphate bonded investments, which are suitable for a preheating temperature of 950°C, are qualified for investing (The investment material manufacturer's instructions for use have to be strictly complied with).

Preheat the muffle –according to the instructions of the investment producer- to an end temperature of 950 - 1050°C.

### 3. Melting and Casting

Premelt of the alloy in a ceramic crucible. Place the muffle in the centrifuge before the last cylinder has melted. Continue melting the alloy until the shadow in the centre has disappeared. At that stage, the alloy has been completely melted and the casting procedure should be started immediately.

- Only use clean ceramic crucibles
- Use a separate crucible for each alloy
- For optimum casting results only use new metal
- Do not use melting powder
- Do not overheat the alloy

Please follow the instructions of the manufacturer while melting with acetylene/oxygen. A correctly adjusted flame avoids the impurity of the alloy. Start the casting procedure as soon as the alloy has been melted and moves slightly under the flame pressure. After casting, the muffle must cool down to room temperature and can then be divested

### 4. Soldering

For soldering all commercially available high-melting cobalt-chrom-solders can be used. If the alloy is handled in accordance with all instructions, it can be easily grinded and polished. A good high gloss polishing ensures optimal density and best bio-compatibility.

### 5. Warning

During grinding sufficient protection against dust inhalation has to be taken.