

<b>Material number (DIN)</b>	2.1285						
<b>Material no. UNS (ASTM)</b>	C17500						
<b>International standard</b>	R.W.M.A Class 3						
<b>Abbreviation</b>	CuCo2Be						
<b>Standard analysis</b> (percent by weight)	<table border="1"> <tr> <td>Co</td> <td>Be</td> <td>Cu</td> </tr> <tr> <td>2,2</td> <td>0,4-0,7</td> <td>remainder</td> </tr> </table>	Co	Be	Cu	2,2	0,4-0,7	remainder
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2,2	0,4-0,7	remainder					

**Material description** Hardenable Cu-alloy with high electrical and thermal conductivity with a high degree of hardness and strength.

- Applications**
- Electrodes for resistance welding and resistance roller seam welding especially of stainless and heatresistant steels
  - Upsetting electrodes, electrode jaws and UP nozzles
  - Sealing clamps and plates for plastic welding machinery
  - Plungers tips in cold chamber die cast machines
  - Nozzles for hot channel systems
  - Inserts in plastic blow moulding and plastic injection moulding

**Mechanical properties**  
(at 20° C)

Condition		hardened
hardness (average)	HB 10/2,5	210-260
tensile strength	N-mm <sup>2</sup>	min. 650
tensile yield strenght	N-mm <sup>2</sup>	min. 500
(A 5) elongation	%	min. 8
Modules of elasticity	N-mm <sup>2</sup>	135 x 10 <sup>3</sup>
Softening temp.	°C	min. 480

**Physical properties**  
(at 20° C)

Specific weight	$\frac{g}{cm^3}$	8,8
Specific heat	$\frac{J}{g.K}$	0,42
Thermal conductivity	$\frac{W}{m.K}$	20° C env. 240 300° C env. 260
Coefficient of expansion (20-200° C)	$\frac{1}{K}$	17,2 x 10 <sup>-6</sup>
Electrical conductivity	$\frac{MS}{m}$	min. 25 min. 43% IACS
Electrical resistance	$\frac{Ohm \cdot mm^2}{m}$	0,033-0,05