

<b>Material number (DIN)</b>	like 2.1285 (Similar)								
<b>Material no. UNS (ASTM)</b>	C17500 (Similar)								
<b>International standard</b>	R.W.M.A Class 3								
<b>Abbreviation</b>	CuCoNiBe								
<b>Standard analysis</b> (percent by weight)	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Co</td> <td style="padding: 2px;">Ni</td> <td style="padding: 2px;">Be</td> <td style="padding: 2px;">Cu</td> </tr> <tr> <td style="padding: 2px;">0,8-1,3</td> <td style="padding: 2px;">0,8-1,3</td> <td style="padding: 2px;">0,4-0,7</td> <td style="padding: 2px;">remainder</td> </tr> </table>	Co	Ni	Be	Cu	0,8-1,3	0,8-1,3	0,4-0,7	remainder
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0,8-1,3	0,8-1,3	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	220-280
tensile strength	N-mm <sup>2</sup>	min. 750
tensile yield strenght	N-mm <sup>2</sup>	min. 600
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. 45% IACS
Electrical resistance	$\frac{Ohm \cdot mm^2}{m}$	0,033-0,05