

Material number (DIN) 2.1247

Material no. UNS (ASTM) C17200

International standard R.W.M.A Class 4

Abbreviation CuBe2

Be	Ni+Co	Cu
1,8-2,1	0,2-0,5	remainder

Material description High strength, good fatigue strength, good conductivity, non-magnetic, wear resistance

- Applications**
- Nozzles and needles for hot runner systems
 - Inserts in plastic blow moulding and plastic injection moulding
 - Needles and nozzles for hot canal systems
 - Packing bearings rings in extreme high pressure hydraulics (e.g. jet cutting)
 - Stud holders for stud welding equipment
 - High strength, non-magnetic, non-sparking parts, sleeves, bushings, bearings for offshore, onshore, airplanes, precision instruments and medical applications moulding

Mechanical properties
(at 20° C)

Condition		hardened
hardness (average)	HB 10/2,5	360-390
tensile strength	N-mm ²	min. 650
tensile yield strenght	N-mm ²	min. 500
(A 5) elongation	%	min. 1
Modules of elasticity	N-mm ²	135 x 10 ³
Softening temp.	°C	min. 480

Physical properties
(at 20° C)

Specific weight	$\frac{g}{cm^3}$	8,3
Specific heat	$\frac{J}{g.K}$	0,42
Thermal conductivity	$\frac{W}{m.K}$	20° C ca. 110 300° C ca. 210
Coefficient of expansion (20-200° C)	$\frac{1}{K}$	0-200° C 17,4 x 10 ⁻⁶
Electrical conductivity	$\frac{MS}{m}$	min. 12 min. 22% IACS