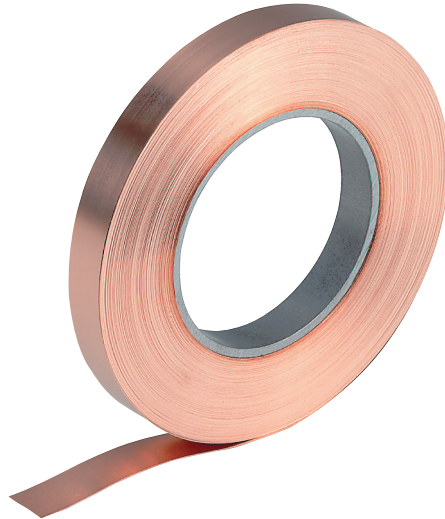


Data sheet - GB



DESCRIPTION OF PRODUCT

Copper ribbon on produced with no adhesive backing

Tolerance of thickness: $\pm 10\%$

Tolerance of width: according to EN 1652

Designations:

according to DIN:	E-Cu 58	
according to ISO:	Cu-ETP	ISO/R 1337
in Switzerland:	Cu-ETP	VSM 10826
in Belgium:	Cu-E	
in France:	Cu/al	NF A53-100
in Italy:	Cu-ETP	UNI 5649
in Netherlands:	Cu-ETP	NEN 6023
in Spain:	Cu-e	UNE 37.103
in Great Britain:	CW 004A	BS EN 1652:1998
in USA:	ETP/C11000	ASTM B5; B152

Composition of material: Cu $\geq 99.9\%$, O2 0.005 bis 0.04%, (DIN EN 1976/ old: DIN 1787)

Characteristics of material: Copper with low oxygen content and an electrical conductivity in annealed temper of minimum 100 % IACS.

Typical applications: As conductor and for shielding purposes in electrical applications, art and craft work, machine construction, building industry

PHYSICAL PROPERTIES

Density:	8.9 g/cm ³	0.321 lb./in. ³
Melting point:	1083 °C	1981 °F
Coefficient of thermal expansion (linear):		
	16.8*10 ⁻⁶ /K at 25 - 100 °C,	9.33 . 10 ⁻⁶ per °F at 77 - 212 °F
	17.7*10 ⁻⁶ /K at 25 - 300 °C	9.83 . 10 ⁻⁶ per °F at 77 - 572 °F
Specific heat capacity:	0.3865 J/gK at 20 °C	0.0921 BTU/lb. °F at 68 °F
Thermal conductivity:	385.2 W/Km at 100 °C	223 BTU ft./ft. ² h °F at 212 °F
Electrical conductivity:	58 - 58.9 m/Ωmm ² at 20 °C in condition soft	100.0 - 101.5 % IACS at 68 °F
Electrical resistivity:	0.01693 - 0.017241 Ωmm ² /m; dito.	10.371-10.2 ohms (circ mil/ft.) 0.678-0.669 micro-ohm in. at 68 °F
Temperatur coefficient of electrical resistance		
	0,00393/K at -100 to +200 °C	0.00218 per °F (100 % IACS) at-148 to 392 °F
Modulus of elasticity (tensile)		
annealed:	117700 N/mm ²	17 . 10 ⁻⁶ lb./in. ²
cold enroled:	117700 - 132000 N/mm ²	17 . 10 ⁻⁶ to 19 . 10 ⁻⁶ lb./in.

PROCESSING PROPERTIES

Annealing temperature range:	200 - 500 °C	392 - 932 °F
Stress relieving temperature:	80 - 150 °C	176 - 302 °F
Cold formability in annealed temper:	excellent	
Welding:	fair	
Brazing:	good	
Soft soldering:	excellent	
Vickers Hardness:	soft: 40-60 HV	
(testing force and conditions as defined in DIN 50133 where applicable)		
Tensile strength:	220 N/mm ²	
Elongation:	22%	

All data have been obtained with great care and to the best of our knowledge. A guarantee in the legal sense is not implied. The contents are subject to change without notice. The characteristic curves shown are based on averages derived from obtained test values and are used to depict typical characteristics of our material.