



# TRC<sub>1</sub> (CuCr<sub>1</sub>) technical datasheet

## CHEMICAL COMPOSITION

Cu	Cr	Be	Zr	Ni	Si	Other
Rest	0,3-1,2					

## SPECIFICATIONS

ASTM: C18200	RWMA: CLASS II
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## MECHANICAL PROPERTIES

Tensile Strength (R <sub>m</sub> ) N/mm <sup>2</sup>	: 320-380
Yield Strength (R <sub>p</sub> 0,2) N/mm <sup>2</sup>	: 230-290
Elongation (A <sub>5</sub> ) %	: Min.12-18
Hardness (HB 30)	: 120-135
Elastic Modulus	: 130 x 10 <sup>3</sup> N/ mm <sup>2</sup>

## DESCRIPTION OF MATERIAL

CuCr<sub>1</sub> contains; approximately 1% chromium and it has high conductivity and better mechanical properties than pure copper with fairly good conductivity. After forging and heat treating, it is possible to have better hardness and mechanical properties.

## PHYSICAL PROPERTIES

Density	: 8,96 g/ cm <sup>3</sup>
Specific Heat	: 0,38 j/g.k
Electrical Conductivity	: 49-51 MS/ m
Electrical Conductivity (I.A.C.S.)	: 76-80 %
Thermal Conductivity	: 323,6 W/ m.K
Coefficient of Thermal Expansion	: 20-100 °C 17,0 X 10 <sup>-6</sup> /K
Working Temperature	: 500 °C maks.

## APPLICATIONS

It uses as resistance welding electrodes, electrode holders and seam welding discs. Current carrying arms, cable connectors, electrical and thermal conductors working under mechanical stresses.