HEATING CONDUCTOR ALLOY

1.4860 (NiCr 30 20)

Excellence in Specialty Steel

Material Designation

1.4860 DIN

Standards

DIN 17470

Chemical Composition Mass-%, average value acc. to DIN 17470

Ni	Cr	Fe
30,0	20,0	Bal.

Other elements may be added to meet physical and technological properties.

Properties

NiCr 30 20 is a stainless austenitic iron-chromium-aluminium alloy with high resistivity, good high-temperature strength and oxidation resistance. NiCr 30 20 is non-magnetic.

Delivery Condition

- annealed (+A)

Supply Form

Wire (on spool up to 3mm, coils, casks)
Bright bars, continuous cast billets

Application Area

Heating elements with service temperatures up to 1100 °C.[1]

Typical Applications

- Heating elements for electric furnaces
- Convection and fan heaters
- Heating cables
- Seat heating
- Deicing elements
- Resistors

Mechanical Properties at room temperature

Dimension [mm]	Tensile strength [N/mm²]	Elongation [%]
0,060 - 0,125	≥ 600	14
> 0,125 - 1,00	≥ 600	18
> 1,00	≥ 600	18
> 2,00	≥ 600	25

Physical properties

Temperature [°C]	20	200	400	600	800	1000	1200
Electrical resistivity [Ω mm²/m]	1,04	1,11	1,17	1,22	1,26	1,30	-
Thermal conductivity [W/m·K]	13						
Specific heat capacity [kJ/kg·K]	0,50					0,54	
Melting temperature [°C]	1390						
Density [g/cm³]	7,9						

Temperature [°C]	20-400	20-800	20-1000
Thermal expansion coeff. x [10^{-6}/K]	16	18	19

[1]Temperature valid for wire > 2 mm in air.

Quality

- ISO 9001
- ISO 14001
- ISO 50001
- Approvals acc. to standards like ABS, BV, DNV ...
- Customer specific approval certificates

Innovation

- Fully automated ultrasonic testing up to dia. 1000 mm
- CO_2-reduction by innovative heat treatment solutions

Flexibility

- Product range from fine wire to forging
- Directly from stock close at hand

Individuality

- Dimensions
- Tolerances
- Surface qualities
- Delivery conditions

Your personal contact:

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