

# BGH NicraTHERM 70-30

## Material Designation

2.4658     DIN  
N06008     UNS

## Standards

DIN 17470  
DIN 17742

## Chemical Composition Mass-%

	C	Si	Mn	P	S	Cr	Ni	Cu	Fe	Al
min.	-	0,50	-	-	-	29,0	60,0	-	-	-
max.	0,10	2,00	1,00	0,020	0,010	32,0	Balance	0,50	5,0	0,30

## Eigenschaften

BGH NicraTHERM 70-30 is an austenitic, high-temperature-resistant Ni-Cr alloy. It exhibits high resistance to oxidising and reducing atmospheres, although this is limited in the presence of sulphurous gases. The material is highly resistant to atmospheric corrosion.

## Delivery Condition

- ✘ Final annealed
- ✘ Bright drawn

## Supply Form

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

## Application Area

Heating elements for domestic applications and industrial furnaces, as well as for furnace components with operating temperatures of up to 1250 °C (2282 °F).<sup>1</sup>

## Typical Applications

- ✘ Kitchen appliances (grills, toasters, hotplates))
- ✘ Industrial furnaces

## Mechanical Properties annealed condition acc. to DIN 17470

Dimension [mm]	Tensile strength [N/mm <sup>2</sup> ]	Elongation [%]
0,063 ≤ 0,125	≥ 650	≥ 14
0,126 ≤ 0,500	≥ 650	≥ 18
0,5 ≤ 1,00	≥ 650	≥ 18
> 1,00	≥ 650	≥ 25

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## Physical Properties acc. to DIN 17470

Temperature [°C]	20	200	400	600	800	1000	1200
Electrical resistivity [Ω mm <sup>2</sup> /m]	1,19	1,22	1,24	1,24	1,24	1,24	1,25
Thermal conductivity [W/m·K]	14,0						
Specific heat capacity [kJ/kg·K]	0,42					0,50	
Melting temperature [°C]	1380						
Density [g/cm <sup>3</sup> ]	8,2						
Temperature [°C]	20-400	20-800	20-1000				
Thermal expansion coeff. x [10 <sup>-6</sup> /K]	15	16	17				

<sup>1</sup>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<sub>2</sub>-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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