

Material Designation

1.4765 DIN

Standards

DIN 17470

Chemical Composition Mass-%, based on DIN 17470

	Cr	Al	Fe
Min	22,0	5,0	
Max	25,0	5,5	Bal.

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

Properties

CrAl 25 5 is a stainless ferritic iron-chromium-aluminium alloy with high resistivity and good oxidation resistance. It is magnetic up to approx. 600 °C.

Delivery Condition

✖ annealed (+A)

Supply Form

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

Application Area

Heating elements in high-temperature furnaces, ceramic kilns and radiant heaters with service temperatures up to 1400 °C.¹ Suitable for exhaust gas treatment.

Typical Applications

- ✖ Heating elements for high-temperature furnaces
- ✖ Radiant heaters

Mechanical Properties at room temperature

Dimension [mm]	Tensile strength [N/mm ²]	Elongation [%]
0,060 - 0,125	≥ 600	8
> 0,125 - 1,00	≥ 600	10
> 1,00	≥ 600	12
> 2,00	≥ 600	12

Physical properties

Temperature [°C]	20	200	400	600	800	1000	1200
Electrical resistivity [Ω mm ² /m]	1,44	1,44	1,45	1,46	1,48	1,49	1,49
Thermal conductivity [W/m·K]	9,2						
Specific heat capacity [kJ/kg·K]	0,46					0,63	
Melting temperature [°C]	1500						
Density [g/cm ³]	7,1						
Temperature [°C]	20-400	20-800	20-1000				
Thermal expansion coeff. x [10 ⁻⁶ /K]	12	14	15				

¹Temperature 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 phased-array-ultrasonic testing up to dia. 1000 mm
- CO₂-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:

BGH Edelstahlwerke GmbH

Am Stahlwerk 1
01705 Freital
+49 351 646-0
www.bgh.de

