Technical datasheet — Alloy X / HX / W-Nr. 2.4665

A high temperature nickel-chromium-iron-molybdenum alloy with an exceptional combination of strength and oxidation resistance at elevated temperatures and also ease of fabrication.

Available products

Product form	Size range from	Size range to
Sheet/plate	0.5 mm thickness	38.1 mm thickness
Bar	6.35 mm diameter	152.4 mm diameter

Chemical composition (%)

Ni	Cr	Fe	Mo	Co	W	Si	Mn	C
Balance	20.5-23.0	17.0-20.0	8.0-10.0	0.5-2.5	0.2-1.0	1.0 max	1.0 max	0.05-0.15

Major specifications

ASTM B435, B472, B572
AMS 5536, 5754
UNS N06002
DIN 17742

Physical properties

Density	8.22 g/cm^3
Melting range	1260-1355°C

Mechanical properties – typical room temperature properties (sheet)

Yield strength	370 MPa
Tensile strength	780 MPa
Elongation	46 %

Key attributes

Alloy X / HX is a high temperature nickel-chromium-iron-molybdenum alloy with excellent oxidation resistance and strength at temperatures up to 1200°C. With good resistance to oxidising, reducing and neutral atmospheres this grade is suitable for industrial furnace equipment. It has also been found to have outstanding resistance to stress-corrosion cracking in petrochemical applications.

Alloy X / HX is highly fabricable and is readily formed by either hot or cold working processes. It is machinable and can be welded by conventional processes and procedures. Please contact us for further details on forming, fabrication and welding consumables.

Applications

Gas turbine components
Afterburners
Industrial furnaces
Heat treatment equipment
Chemical and petrochemical process equipment

Do you require further information or a quotation?
Please contact us…
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