HX Data sheet

HX is one of the most widely used nickel base superalloys for gas turbine engine components. This solid solution strengthened grade has good strength and oxidation resistance to 2000°F

Alloy Highlights

Good high temperature strength
Carburization resistant
Good Oxidation Resistance

Typical Applications

Combustion liners
Turbine exhaust components
Aircraft cabin heaters
Transition Ducts

Mechanical Properties (as Sintered)		
Test	Horizontal	Vertical
Tensile Strength	123 +/-5	104 +/-5
Yield Strength	98 +/-7	83 +/-7
Elongation at break	30 +/-7 %	46 +/-5 %
Hardness (HBW)		176
Density (lb/in^3)		0.294

Chemistry		
Element	Range (%)	
	Min	Max
Al		0.5
B		0.01
C		0.10
Co	0.5	2.5
Cr	20.5	23.0
Cu		0.5
Fe	17.0	20.0
Mn		1.0
Mo	8.0	10.0
Ni	Balance	
P		0.04
S		0.03
Se		0.005
Si		1.0
Ti		0.15
W	0.2	1.0

Applicable Chemistry Specifications

AMS 5536	AMS 5754	AMS 5798
EN 2.4665	UNS N06002	ASME SB 435
ASME B 572	ASTM B435	ASTM B 572