

Brand name | SICRO 12

Standards	Material No.	EN Designation	AISI/SAE	UNS
	1.4762	X10CrAlSi25	446	S44600

Description | AISI 446 / 1.4762 is a heat resistant ferritic chromium stainless steel with aluminum in addition.

Special properties | Resistant to scaling up to 1150°C. Resistant to oxidizing sulphuric gases.

Chemical Composition	C %	Si ≤ %	Mn ≤ %	P ≤ %	S ≤ %
	≤ 0.12	0.70-1.40	1.00	0.04	0.015
	Cr %	Al %			
	23.0-26.0	1.20-1.70			

Mechanical Properties 20°C	Hardness HB 30 ≤ HB	0.2% Yield strength R <sub>p</sub> ≥ N/mm <sup>2</sup>	Tensile strength R <sub>m</sub> N/mm <sup>2</sup>	Elongation A <sub>5</sub> ≥ %	Resistant on air up to °C
	223	280	520-720	10	1150
	Modulus of elasticity kN/mm <sup>2</sup>				
	220				

Physical Properties 20°C	Density g/cm <sup>3</sup>	Specific heat capacity J/kg K	Thermal conductivity W/m K	Electrical resistivity Ω mm <sup>2</sup> /m
	7.7	500	17	1.1

Suitable welding filler materials | 1.4773; 1.4820; 1.4842

Application | Steam generator

Available forms for 1.4762 / AISI 446	Sheets/Plates	Bars	Tubes/Pipes	Fittings	Forged / cast parts	Finished part (drawing)
						