

Standards

Material No.	EN Designation	AISI/SAE	UNS
1.4833	X12CrNi23-13	309 S	S30908

Description

AISI 309 S / 1.4833 is a heat resistant austenitic chromium-nickel-stainless steel.

Special properties

Resistant to scaling up to 1000°C. Low resistance to oxidizing sulphuric gases.

Chemical Composition

C %	Si ≤ %	Mn ≤ %	P ≤ %	S ≤ %
≤ 0.15	1.00	2.00	0.045	0.015
Cr %	Ni %	N %		
22.0-24.0	12.0-14.0	≤ 0.11		

Mechanical Properties 20°C

Hardness HB 30 ≤ HB	0.2% Yield strength R _p ≥ N/mm ²	Tensile strength R _m N/mm ²	Elongation A ₅ ≥ %	Resistant on air up to °C
192	210	500-700	35	1000
Modulus of elasticity kN/mm ²				
196				

Physical Properties 20°C

Density g/cm ³	Specific heat capacity J/kg K	Thermal conductivity W/m K	Electrical resistivity Ω mm ² /m
7.9	500	15	0.78

Suitable welding filler materials

1.4842

Application

Furnace and apparatus engineering

Available forms for 1.4833 / AISI 309 S

Sheets/Plates	Bars	Tubes/Pipes	Fittings	Forged / cast parts	Finished part (drawing)
					