

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		

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.

Steel Grade

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

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 ≥ %	Modulus of elasticity kN/mm ²
192	210	500-700	35	196
Resistant on air up to °C				
1000				

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
7.98	500	15	0.78

Suitable Welding Filler Materials

1.4842

Application

Furnace and apparatus engineering

Available Forms for AISI309S

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