



FERRITIC STAINLESS STEEL	
EN DESIGNATION	ASTM DESIGNATION
1.4512	409
	S40920

Description:

Significantly more corrosion resistant than mild or low alloy corrosion resistant steels. However, it has a lower corrosion resistance than the higher chromium Standard ferritic. It should only be used in mildly corrosive conditions where aesthetics is not a prime requirement. A light surface patina or discoloration will form in most corrosive environments and this patina will, to some extent, retard further corrosion.

Chemical Composition:

C	S	P	Mn	Si	Cr	Ni	N	Ti	Nb
≤ 0.030	≤0.020	≤ 0.040	≤1.00	≤ 1.00	10.5-11.7	≤ 0.50	≤ 0.030	≤ 0.50	≤ 0.17

Mechanical Properties:

Rm (MPa)	Rp0.2 (MPa)	A50 (%)	HRBW
≥ 380	≥ 170	≥ 20	≤ 88

Applications:

Exhaust applications, stamping, cold forming applications, catalytic converter systems and mufflers

Corrosion resistance:

Grade 409 stainless steels have excellent resistance to exhaust gas and atmospheric corrosion, superior to that of 410 martensitic grades with 12% chromium and 3CR12. However, the corrosion resistance is lower than that of grade 430 steels containing 17% chromium. The surface of grade 409 steels is liable to mild corrosion, which limits the usage of steels for decorative purposes.

Specifications:

It can be delivered according to EN, ASTM, ASME standard requirements.