

MATERIAL DATASHEET

Alloy 409 Stainless Steel

UNS: S40910/S40920/S40930
EN-DIN: 1.4512

409 Stainless is used when corrosion protection is needed beyond a carbon steel capacity. Applications include: Automotive, exhaust systems, and heat exchangers.

Nominal Composition

	C	Mn	P	S	Si	Cr	Ni	N	Fe		
min	-	-	-	-	-	10.50	-	-	-		
max	.030	1.0	0.040	0.020	1.00	11.70	0.50	0.030	BAL		

Physical Properties

	At 70°F	At 20°C
Density	0.280 lb./in ³	7.75 g/cm ³
Modulus of Elasticity (E)	30.2 x 10 ³ ksi	208.22 x 10 ³ MPa
Electrical Resistivity	24.0 μ ohm.in	60.0 μ ohm.cm

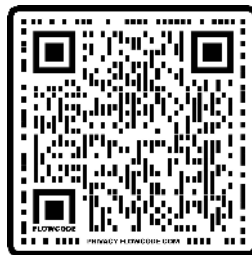
Applicable Specifications

ASTM A240

Typical Mechanical Properties – Typical Room Temperature Mechanical Properties

Condition	Tensile Strength (UTS)	0.2% YS	Elongation% in 2" (50.8 mm)	Hardness Rockwell
Annealed	60 ksi (420 MPa)	28 ksi (193 MPa)	28	66 HRBW

Typical mechanical properties are based, AK source on ASTM A240



ELGILOY.COM

LIMITATION OF LIABILITY AND DISCLAIMER OF WARRANTY:

The content in these data sheets is provided primarily by third-party melting mills and is provided for reference only. It is not intended for engineering or design.

Applications may be discussed, however, Elgiloy Specialty Metals does not recommend or endorse any material for any particular end use or application.

In no event will Elgiloy Specialty Metals be liable for any damages whatsoever arising from the use of the information included in the data sheets.

The data included in this data sheet are typical values and may vary.

Elgiloy Specialty Metals makes no representations or warranties, express or implied, as to the accuracy, completeness, condition, suitability, performance, fitness for a particular purpose, or merchantability of any information contained in any data sheet.