



PRODUCT

DATA SHEET

Low Alloy Steels

Weld Process: Mig (GMAW) and Tig (GTAW)

Alloy: 4130 Class: AISI4130

Conforms to Certification: AISI 4130

Alloy: DM4130

Chemical Composition Requirements %

C = 0.28 – 0.33 Cr = 0.8 – 1.1
Mn = 0.40 – 0.60 Mo = 0.15 – 0.25
Si = 0.15 – 0.60 Fe = Balance

Deposited Chemical Composition % (Typical)

C = 0.31 P = 0.014 Si = 0.25
Mn = 0.51 S = 0.008 Cu = 0.12
Mo = 0.20 Cr = 1.01 Ni = 0.25

Deposited All Weld Metal Properties %

Tensile Strength 160,000psi or higher

Hardness Values of Pure Weld metal as Welded

33 – 38 HRC Machinable

Can be flame hardened to 50 HRC

Recommended Weld Parameters

SHORT ARC

<u>Diameter</u>	<u>Volts</u>	<u>Amps</u>	<u>IPM</u>
.030	15 - 20	40 - 130	110 - 340
.035	16 - 25	60 - 235	100 - 520
.045	18 - 23	90 - 290	70 - 270

SPRAY ARC

<u>Diameter</u>	<u>Volts</u>	<u>Amps</u>	<u>IPM</u>
.035	23 - 26	160 - 300	320 - 600
.045	23 - 29	170 - 375	170 - 550
1/16	25 - 31	275 - 475	175 - 350

Application

This product is for building up limited joining of AISI 4130 steels when heat treatment or flame hardening is required. It is also used for repairing forging dies shafts, castings and when welding on medium to high carbon steels.

Preheat and inter-pass is recommended and may also need to be followed by post heat treating.