410

DESCRIPTION: Weldcote Metals 410 is used to weld Types 403, 405, 410 and 416. It is also used for welding overlay on carbon steels to resist corrosion, erosion, or abrasion. This material, being an air hardening type, calls for preheating of the joint to 350°F before welding. NOTE: Mechanical properties listed below reflect utilization of post-weld heat treatment between 1350°F and 1400°F for one hour.

APPROVALS: Manufactured under Quality System approved by ASME, IS09001. Meets AWS 5.9 Class ER410. Approved by Canadian Welding Bureau.

CHEMICAL COMPOSITION

	Tensile Strength
Carbon	0.120
Manganese	0.600
Silicon	0.500
Chromium	12.000-13.500
Nickel	0.600
Molybdenum	0.300
Sulfur	0.020
Phosphorus	0.030
Copper	0.300

MECHANICAL PROPERTIES

89,000 PSI	620 MPA
Yield Strength	
78,500 PSI	540 MPA
Elongation	24%

WELDING PARAMETERS

a)	**MIG WELDING:**	Direct current; Electrode +Ve
	Shielding Gas	98/99% Argon + 2/1% Oxygen 97% Argon + 3% CO2
	Gas Flow	30 to 50 CFH
	Voltage	29 to 33
	Amperage	160/180 for .035" (0.9mm) 180/220 for .045" (1.14mm) 210/250 for .062" (1.6mm)
b)	**TIG WELDING:**	Direct Current; Electrode –Ve
	Shielding Gas	100% Argon
	Gas Flow	30 to 40 CFH
c)	**SUB-ARC WELDING:**	Direct Current; Electrode + Ve
	Voltage	29 to 32
	Amperage	300 to 350 for 3/32" (2.5mm) 400 to 550 for 1/8" (3.14mm) 500 to 650 for 5/32" (4.0mm)
	Speed of Welding	20 to 30 IPM (500 to 750mm)/min.