

## MIDALLOY ER2209 BARE WIRE

### CLASSIFICATION

- AWS 5.9 Class ER2209 / ASME SFA 5.9 Class ER2209
- UNS# S39209 A#8 F#6

### DESCRIPTION

- MIDALLOY ER2209 bare welding wire is used to weld standard duplex stainless steels such as UNS S31803.
- This product over matches the base metal by 2-3% in nickel content so as to give the correct balance of austenite and ferrite in the microstructure in the as-welded condition.

### APPLICATIONS

- Used for pipe work and general fabrication in the offshore oil, gas and chemical process industries.
- Alloy offers high strength with good ductility and excellent corrosion resistance.

### TYPICAL CHEMISTRY

C	Cr	Ni	Mo	Mn	Si	P	S	N
.013	22.7	8.7	3.2	1.75	.41	.015	.002	.17

- Duplex weld metal microstructure with austenite + 30-50% ferrite.

### TYPICAL MECHANICAL PROPERTIES

TENSILE STRENGTH	118,900 PSI
YIELD STRENGTH	84,100 PSI
ELONGATION IN 2"	28%

### RECOMMENDED WELDING PARAMETERS

PROCESS	DIAMETER	VOLTAGE	AMPERAGE	GAS/FLUX*
TIG (GTAW)	1/16"	14-18	90-130	100% Ar
	3/32"	15-20	120-175	100% Ar
	1/8"	15-20	150-220	100% Ar
MIG (GMAW)	.035" SHORT ARC	19-21	90-120	90 He/7.5 Ar/2.5 CO <sub>2</sub> ,
	.045" SPRAY ARC	28-32	180-250	98 Ar/2 O <sub>2</sub>
	1/16" SPRAY ARC	29-33	200-300	98 Ar/2 O <sub>2</sub>
SAW	3/32"	28-30	275-325	SOUDOKAY IND 24
	1/8"	28-30	350-400	SOUDOKAY IND 24

\* Other gas may be used – call with specific applications

Heat input restrictions 12,000 + 63,000 joules/IN

### PACKAGING

- TIG 10 lb. tube/60 lb. carton
- MIG 30 lb. spool
- SUB-ARC 60 lb. coil

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