

# SMT-825

## Conformances

AWS A5.14/ ASME SFA5.14 ERNiFeCr-1  
 JIS Z3334 S Ni8065 (NiFe30Cr21Mo3)  
 EN ISO 18274 S Ni 8065

## Applications

- Ni-Cr-Mo-Co alloys
- Overlay cladding on similar chemical composition steels

## Features

- Good resistance of corrosion in sulfuric acid and phosphoric acid environment

## Welding Position

### Current

GMAW: DC+(Pulse)  
 GTAW: DC-

### Shielding Gas

Ar, Ar + He

## Diameter / Packaging

Diameter	MIG	TIG
mm (in)	12.5kg (27.6lbs)	5kg (11lbs)
1.0 (0.040)	✓	
1.2 (0.045)	✓	
1.6 (1/16)	✓	
2.0 (5/64)		✓
2.4 (3/32)		✓
3.2 (1/8)		✓

## Typical Chemical Composition of the Wire (%)

C	Si	Mn	P	S	Cr	Ni	Mo	Fe	Cu	Ti
0.01	0.25	0.45	0.02	0.001	21.5	42.6	3.1	29.0	2.0	1.0

## Typical Mechanical Properties of All-Weld Metal

YS MPa(lbs/in <sup>2</sup> )	TS MPa(lbs/in <sup>2</sup> )	EL (%)	Temp °C(°F)	CVN-Impact Value J (ft-lbs)
420 (61,000)	610 (88,000)	34.0		

## Typical Welding Parameters

Diameter, Polarity Shielding Gas	Amp. (A)	Volt. (V)
	1.2mm (0.045 in) DC+	
Ar, Ar + He	160	28
	2.4mm (3/32 in) DC-	
Ar	110	12