

GMAW Solid Wire for Stainless Steel

KMS-2594

Classification

AWS	A5.9/A5.9M	ER2594
JIS	Z3321	YS2594
EN	14343-A	G 25 9 4 N L
YB	T5092	H022Cr25Ni9Mo4N

Shielding Gas: Ar+1~2%O₂(CO₂)

Applications and Features

- (1) Weld metal is super duplex stainless steel with 25%Cr-9%Ni-4%Mo-0.25%N.
- (2) The Pitting Resistance Equivalent Number (PREN) exceeds 40.
- (3) Suitable for welding 25%Cr duplex stainless steel, such as UNS S32750 (Alloy 2507).

Welding Position



Welding Instruction

- (1) Use Ar+1~2%O₂ for spray transfer and Ar+1~2%CO₂ for short-circuit transfer.
- (2) For other instructions, please refer to Appendix B and F.

Typical Chemical Composition of Weld Metal (wt%)

C	Si	Mn	P	S	Cr	Ni	Mo	N
0.01	0.46	0.58	0.009	0.008	25.07	9.23	3.91	0.25

Typical Mechanical Properties of Weld Metal

Tensile Strength	Yield Strength	Elongation
N/mm ²	N/mm ²	%
851	681	28

Size and Suggested Operating Range (DC+)

Diameter (mm)	0.8	0.9	1.0	1.2	1.4	1.6	
Ar+1~2%CO ₂	Current (A)	40~120	60~140	80~160	100~210	-	-
	Voltage (V)	15~20	15~21	16~22	17~22	-	-
Ar+1~2%O ₂	Current (A)	160~210	170~260	180~280	200~300	210~320	220~330
	Voltage (V)	24~28	24~30	24~30	24~30	24~32	24~32