

GEN 2594 Welding Wire and Rod

GEN 2594 is a super-duplex stainless steel used for welding alloys with similar chemical composition such as S31260, S32750, S32760 and S32550. It can also be used for welding of carbon and low alloy steel to duplex stainless steel. The weld metal offers good resistance against stress corrosion cracking and pitting corrosion.

CONFORMANCES

AWS A5.9/A5.9M	:	ER2594
ASME SFA-A5.9	:	ER2594
UNS	:	S32750

AWS CHEMICAL COMPOSITION (TYPICAL)

%C	%Cr	%Ni	%Mo	%Mn	%Cu
0.03 max 0.01	24.0 – 27.0 25.0	8.0 – 10.5 9.2	2.5 – 4.5 3.9	2.5 max 0.6	1.5 max 0.09
%Si	%P	%S	%W	%N	
1.0 max 0.4	0.03 max 0.02	0.02 max 0.01	1.0 max 0.02	0.08 – 0.20 0.25	

TYPICAL WELD METAL MECHANICAL PROPERTIES

Tensile Strength	:	121,000 psi	834 MPa
Yield Strength	:	91,000 psi	627 MPa
Elongation	:	20 %	

TYPICAL WELDING PARAMETERS*

Process	Diameter		Voltage	Amperage	Gas/Flux
TIG (GTAW)	1/16"	1.6 mm	10 – 12	80 – 150	100% Ar
	3/32"	2.4 mm	15 – 18	150 – 250	100% Ar
	1/8"	3.2 mm	16 – 20	200 – 375	100% Ar
MIG (GMAW)	.035"	0.9 mm	29 – 34	150 – 180	98% Ar – 2% O ₂
	.045"	1.1 mm	29 – 34	180 – 220	98% Ar – 2% O ₂
Sub Arc (SAW)	.093"	2.4 mm	28 – 32	300 – 400	
	.125"	3.2 mm	29 – 33	400 – 500	

*All parameters are suggested as basic guidelines only and will vary depending on joint design, number of passes and other factors.

IMPORTANT: SPECIAL VENTILATION AND/OR EXHAUST REQUIRED
BEFORE USE, READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) FOR THIS PRODUCT AND SPECIFIC INFORMATION PRINTED ON THE PRODUCT CONTAINER.

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