

AI-02594T

Specifications

AWS/ASME A5.9/A5.9M ER2594

AS/NZS ISO 14343 BSS2594

Description and Applications

AI-02594T is a super duplex stainless steel TIG wire with 25% Cr, 9% Ni, 4% Mo, 0.25% N. It has high strength and excellent resistance to pitting and stress corrosion cracking.

Applications: Suitable for welding super duplex stainless steel with such as Zeron 100, Sandvik SAF 2507, UNS S32750 (wrought), UNS J93404 (cast), super duplex stainless steels with PREN between 27-40. Also suitable for joining dissimilar joins between duplex, super duplex stainless steels and lower grade carbon steel alloys.

Typical Weldmetal Analysis

C	Mn	Si	P	S	Cr	Ni	Mo	N
0.015	0.65	0.42	0.013	0.004	25.1	9.2	3.9	0.25

Mechanical Properties of Weld Metal (with shielding gas Ar +2%O₂)

	As Welded
Tensile Strength	840 MPa
Yield Strength	650 MPa
Elongation	28%
Shielding gas	Ar + 1-2% O ₂ for high current, spray transfer welding, or Ar + 1-2% CO ₂ for low current, short-circuit transfer welding

Welding Parameters

Diameter (mm)	Current type	With Ar +1-2%CO ₂		With Ar +1-2%O ₂	
		Amps	Volts	Amps	Volts
0.9	DC(+)	60-140	15-21	170-260	24-30
1.0	DC(+)	80-160	16-22	180-280	24-30
1.2	DC(+)	100-210	17-22	200-300	24-30

5kg packs

Disclaimer

All figures in this datasheet should be considered indicative only. No guarantee is made as to their accuracy.

All figures subject to change without notice. Batch analysis is available for all products sold. Should you require any further information, please contact us at sales@alloysint.com.au



ALLOYS INTERNATIONAL (A'SIA) PTY LTD

25 Raymond Road Laverton North Victoria 3026

Telephone: +61 3 8368 2222

ABN 53 112 712 286

sales@alloysint.com.au | www.alloysint.com.au