

HOBART 2594(TGA/MIG)

Description:

HOBART 2594 is a Super-duplex grade rod that provides matching chemistry and mechanical property characteristics to wrought super-duplex alloys such as 2507 and Zeron 100, as well as to super-duplex casting alloys (ATSM A890).

HOBART 2594 Super-duplex stainless steels combine higher strength than standard duplex stainless steels with excellent corrosion properties, particularly resistance to pitting in chloride environments and resistance to stress corrosion cracking (SCC).

HOBART 2594 Super-duplex stainless steels find widespread use in many industries including: offshore, oil & gas, pulp & paper, chemical, petrochemical, flue gas desulfurization (FGD) and desalination.

Notes on Usage :

1. HOBART TGA-2594 uses 100% Ar and HOBART MIG-2594 uses Ar+2%O₂ as the shielding gas.
2. The welding place should have proper protection from the wind.
3. Clean the base metal from oil and moisture.
4. Keep the product dry, while it is stored or delivered.

Typical Wire Analysis (wt%)

	C	Mn	Si	P	S	Ni	Cr	Mo	Cu	N	W	PREN
AWS A5.9 ER2594	≤0.03	≤2.5	≤0.10	≤0.03	≤0.02	8.0 - 10.5	24.0 - 27.0	2.5 - 4.5	≤1.5	0.20- 0.30	≤1.0	>40
Typical value	0.02	1.40	0.44	0.02	0.003	9.88	25.2	3.88	0.13	0.22	0.02	41

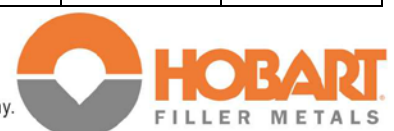
Typical Mechanical Properties of Weld Metal

	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Charpy V (J) -46 °C	DeLong Ferrite / Schaeffler / WRC Number Range
With Ar+2%O ₂	94,000 psi (650 MPa)	123,000 psi (850 MPa)	25	75	30-60
AWS Spec	Not required	>760 MPa	>15%	Not required	Not required

Sizes and Recommended Current Range (DC+)

Diameter (mm)		0.9		1.2		1.6	
Weld Position		Flat & Horizontal					
Amps		150-225	60-200	200-325	130-200	300-350	150-250
Volts		23-26	14-22	24-28	15-23	24-27	16-23
Stick-Out (mm)		13-19	10-13	13-19	10-13	13-19	10-13
Spray Transfer	98% Ar + 2% O ₂ Flow Rate(l/min)	16.5	-	16.5	-	16.5	-
Short-Circuit	90% He - 7-1/2% Ar - 2-1/2% CO ₂ (l/min)	-	11.8	-	11.8	-	11.8

* The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and Hobart Brother Company expressly disclaims any liability incurred from any reliance thereon. Typical data is obtained when welded and tested in accordance with AWS specification. Other tests and procedures may produce different results. No data is to be construed as recommendation for any welding condition or technique not controlled by Hobart Brother Company.



For Welding with Stainless Cut-Lengths (DCEN, 100% Argon Shield, Tungsten Electrode)

Diameter (mm)	Metal Thickness(mm)	Number of Passes	Tungsten Size(mm)	Amps	Travel Speed(mm/s)
(1.6)	(1.6)	1	(1.6)	140-160	(5.1)
(2.4)	(2.4)	1	(1.6)	180-200	(5.1)
(2.4)	(3.2)	1	(1.6)	180-200	(5.1)
(3.2)	(4.8)	1	(2.4)	210-230	(4.2)

Sizes Available

MIG Wire (mm)	0.9 /1.0 /1.2 /1.6
TIG Rod (mm)	1.6 /2.0 /2.4 /3.2

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