



D&H 2594 (NS)

CODIFICATION : AWS : SFA 5.4 E2594-16

CHARACTERISTICS AND APPLICATIONS :

- Non-synthetic electrode depositing super duplex stainless steel weld metal.
- The weld metal exhibits high strength, high impact energy, and resistance to stress corrosion cracking, pitting, and crevice corrosion.
- A soft and smooth arc, which is easy to strike and re-strike.
- Better welder appeal including, easy slag detachability characteristics.
- The weld metal is of radiographic quality.

It is ideal for welding duplex and super duplex stainless steels which contain $\leq 25\%$ Cr. The weld metal possesses excellent corrosion resistance in marine & paper environments. Examples of application areas are: ● Oil and gas industry. ● Off shore platform forms. ● Petrochemical plants. ● Mechanical and structural components demanding high strength combined with high corrosion resistance.

TYPICAL CHEMICAL COMPOSITION OF ALL WELD METAL:

Element :	C	Mn	Si	Cr	Ni	N	P	S	Mo
Percent :	0.026	1.45	0.42	25.0	9.0	0.22	0.023	0.009	4.0

TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

UTS	Elongation
(MPa)	(L = 4d)%
782	23.0

PITTING RESISTANCE NUMBER: Meets the requirement of PREN ≥ 40

CORROSION PROPERTY: Weld metal meets ASTM A 262 Practice C requirements in as welded condition.

CURRENT AND PACKING DATA: AC / DC(+)

Size (mm)	:	5x350	4x350	3.15x350	2.5x350
Dia x Length					
Current Range(Amps)	:	150-180	110-140	80-100	60-80
Weight/Carton (kgs)	:	2.5	2.5	2.5	2.5

PRECAUTIONS:

1. The electrodes should be dry. In case of moisture pick up re-dry at 250-300°C for one hour.
2. The heat input should be in the range of 0.5-1.5 KJ/mm.
3. Please ensure inter pass temperature is less than 150°C and better less than 102°C.
4. No preheat and post weld heat treatment is required.
5. For better results solution annealing at 1080-1120°C is required.

Note: D&H 2594-15(NS) conforming to AWS E2594-15 is also available.