

TFW-2594

AWS A5.22 E2594T1-1
EN ISO 17633-A-25 9 4 NL C1 1

Characteristics and Applications:

TFW-2594 is a super duplex stainless steel flux cored wire, it is suitable for welding 25% Cr duplex stainless steel, such as UNS S32750 (Alloy 2507), S32760, J93380 (Zeron 100) and ASTM A890 and other base materials. The weld metal has austenite-ferrite dual phase structure with high strength, good resistance to stress corrosion cracking (SCC) and pitting corrosion resistance. It is suitable for offshore oil, natural gas, chemical and petrochemical industry pipelines, flue gas desulfurization (FGD), seawater desalination plant and other equipment welding.

Notes on usage:

1. Before welding, oil, rusty, and moisture should be cleaned off the base material that should have the proper protection from the wind in welding site.
2. Use 99.8% purity or higher CO₂ shielding gas.
3. Keep the product dry, while it is stored or delivered.

Typical chemical composition of weld metal (wt%):

	C	Mn	Si	P	S	Cr	Ni	Mo	N
AWS	≤0.04	≤2.5	≤1.2	≤0.03	≤0.025	24.0-27.0	8.0-10.5	2.5-4.5	0.20-0.30
EN ISO	≤0.03	≤2.5	≤1.0	≤0.03	≤0.02	24.0-27.0	8.0-10.5	2.5-4.5	0.20-0.30
Typical value	0.029	0.85	0.60	0.025	0.006	24.57	9.33	3.45	0.21

Typical mechanical properties of weld metal:

	Tensile strength MPa(ksi)	Elongation %
AWS	≥760(110)	≥15
EN ISO	≥620(90)	≥18
Typical value	786(114)	26

Welding position:



Sizes and recommended operating range (DC <+>):

Stick out:15-20(mm), flow rate:20-25(l/min):

Position	Diameter (mm)	1.2
F, HF		150A-220A/24V-33V
H		140A-180A/25V-29V
V-UP		130A-160A/24V-28V
OH		150A-180A/25V-29V

FLUX CORED WIRES

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