

# DW-2594

**All positional flux cored wire  
for super duplex stainless**



## Code Data

**AWS A5.22 E2594T1-1, 4**

## Outstanding Features

- DW-2594 is an innovative rutile flux cored wire specially designed for welding super duplex stainless ASTM32750 grade and ASTM 32760 grade.
- DW-2594 operates with a very stable, spatter free arc producing a bright smooth weld bead surface and self releasing slag.
- DW-2594 has the option of being shielded by 75%Ar-25%CO<sub>2</sub> gas mixture or 100%CO<sub>2</sub> gas (75%Ar-25%CO<sub>2</sub> recommended).

### Typical chemistry of weld metal (75%Ar-25%CO<sub>2</sub>)

C	Si	Mn	Cr	Ni	Mo	Cu	N	PRE	FN
0.03	0.50	1.18	25.7	9.6	3.8	<0.1	0.24	41.8	49

PRE=Cr+3.3×Mo+16×N, FN=Ferrite Number by WRC Diagram(1992)

### Typical mechanical property of weld metal (75%Ar-25%CO<sub>2</sub>)

0.2%P.S (psi)	T.S (psi)	Elongation (%)	Impact value (ft-lbs)	
			-40 °F	0 °F
103,270	131,260	27	29 <15.7>	35 <22.8>

Test method: AWS A5.22, welding parameter: 200A-30V (0.045")

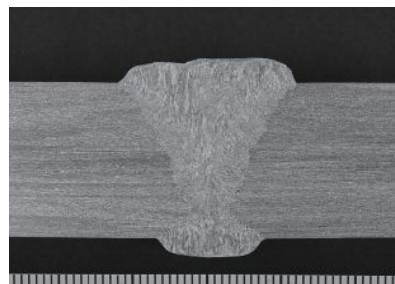
< >: Lateral expansion (unit=mils)

### Pitting Corrosion Property

Test Solution	Time of exposure	Critical Pitting Temperature (°F)
6%FeCl <sub>3</sub> +1%HCl solution aq.	24hrs	104

Test method: According ASTM G48 Practice E

### Macrostructure of butt joint (3G)



Base material:  
S32760  
Wall thickness: 3/4"  
Welding parameter:  
160A-26V  
Shielding gas:  
75%Ar-25%CO<sub>2</sub>