

DW-310

**Classification: AWS A5.22 E310T0-1
 AWS A5.22 E310T0-4**

All-Weld-Metal (100%CO₂)

1-1. Chemical Composition

[Unit: mass%]

	C	Mn	Si	P	S	Ni	Cr	Mo
DW-310	0.18	2.08	0.60	0.014	0.002	20.21	25.21	0.04
E310T0-X	<0.20	1.0~2.5	<1.0	<0.03	<0.03	20.0~22.5	25.0~28.0	<0.5
	WRC- ₁₉₉₂ (FN)		Shaeffler Diagram (%)			Delong Diagram (FN)		
DW-310	0.0		0.0			0.0		
E310T0-X	-----		-----			-----		

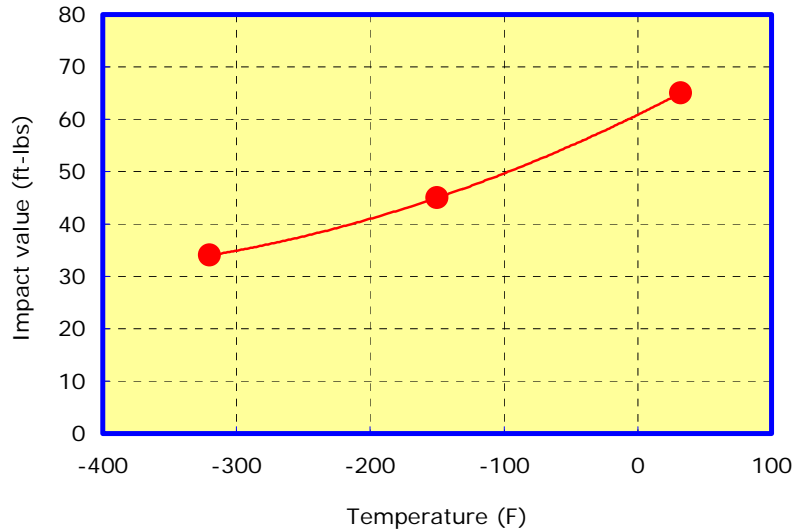
1-2. Tensile Test

	0.2% Proof stress (psi)	Tensile strength (psi)	Elongation (%)	Reduction of Area (%)
DW-310	62,076	88,618	42	54
E310T0-X	---	>80,000	>30	---

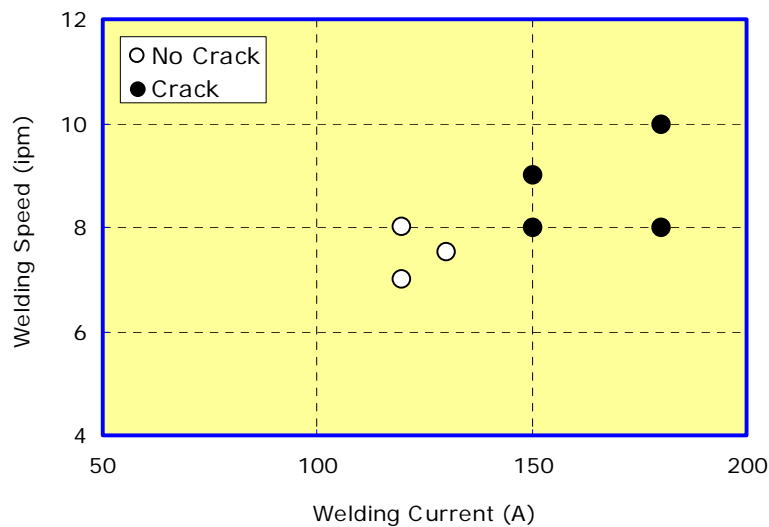
Note) Test was completed in the as welded condition and at room temperature

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1-3. Impact Test



1-4. Crack Susceptibility in Root Pass



The weld metal composition of DW-310 is of the 25%Cr-20%Ni type, and has a fully austenitic structure. Due to the nature of austenitic materials, great care must be taken to prevent cracking. It is recommended that DW-310 be used with the welding current of 150A or less. In first pass welding of a narrow V-groove joint or large stress concentrated joint, a welding current of 140Ams or less is recommended. This will increase the weldments crack resistibility.

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