

## DW-312

**Classification: AWS A5.22 E312T0-1**

**All-Weld-Metal (100%CO<sub>2</sub>)**

### 1-1. Chemical Composition

[Unit: mass%]

	C	Mn	Si	P	S	Ni	Cr	N
DW-312	0.11	1.15	0.56	0.021	0.014	10.10	28.25	0.012
E312T0-X	<0.15	0.5~2.5	<1.0	<0.04	<0.03	8.0~10.5	28.0~32.0	-----
	WRC-1992 (FN)		Shaeffler Diagram (%)			Delong Diagram (FN)		
DW-312	0.0		0.0			0.0		
E312T0-X	51.1		29.5			>18		

### 1-2. Tensile Test

	0.2% Proof stress (psi)	Tensile strength (psi)	Elongation (%)	Reduction of Area (%)
DW-312	79,143	113,300	24	26
E312T0-X	---	>95,000	>22	---

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

**Due to the nature of the chemical composition of DW-312, its ferrite content is very high as compared to DW-309L. This provides greater crack resistance, when welding high carbon steel, tools and dies. This high amount of ferrite should be taken into consideration when welding stainless steels that may require low ferrite weld metal.**



**WARNING:** This product can expose you to chemicals including Nickel and Titanium Dioxide, which are known to the State of California to cause cancer, and Chromium, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**Kobelco Welding of America, Inc.**

**DISCLAIMER**

- Information in this material, such as chemical compositions and mechanical properties, is typical or an example for explaining the features and performances of our products, and it does not mean guarantee unless otherwise it is specified.
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