Exocor
1.888.317.2209 tel
1.855.317.2205 fax
exocor.com

DW-312

Classification: AWS A5.22 E312T0-1

All-Weld-Metal (100%CO_2)

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.

Kobelco Welding of America. Inc.