

KOBELCO FCW Data Sheet 10

DW-310

DW-310 is a flux cored wire which is used for Type 310 stainless steel. The weld metal composition 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 hot cracking. It is recommended that DW-310 be used with a welding current of 150 Amps or less. In first pass welding of a narrow V-groove joint or large stress concentrated joint, a welding current of 140 amps or less is recommended. This will increase the weldments crack resistibility.

DW-310 has an added amount of Manganese to prevent hot cracking. For this reason, DW-310 does not conform to the code. ANSI/AWS A5.22-95 allows a Manganese content of 1 .O-2.5 wt%, **while** DW-310 contains more than 2.5 wt%. All other elements are in conformance with the code.

**All-Weld-Metal (100% CO₂)
IO-I. Chemical Composition**

Unit : wt%

	C	Mn	Si	P	S	Ni	Cr
DW-310	0.19	4.76	0.64	0.028	0.002	20.55	27.37

1 O-2. Ferrite Content

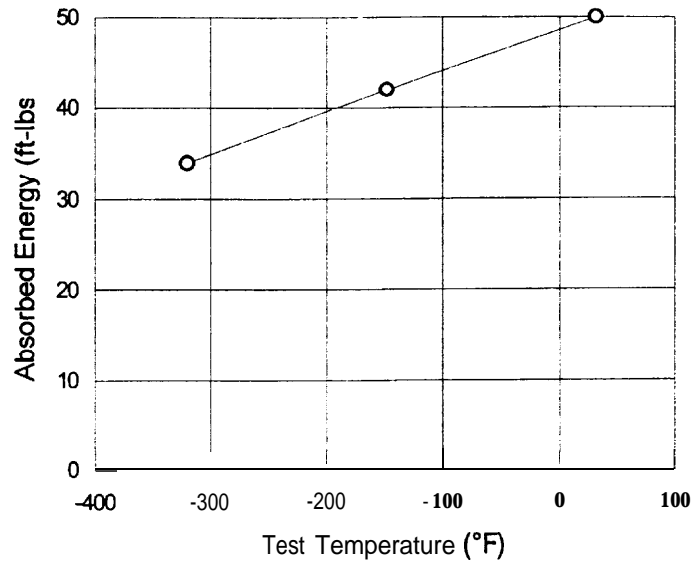
	Shaeffler Diagram (%)	Delong Diagram (FN)	1992-WRC Diagram (FN)
As Welded	0.00	0.00	0.00

10-3. Tensile Test

	0.2% Yield Strength (psi)	Tensile Strength (psi)	Elongation (%)	Reduction of Area (%)
DW-310	62,970	92,386	34	42

Note: Test was completed in the as-welded condition at room temperature.

10-4. Impact Test



10-5. Crack Resistibility of Root Pass

