


KOBELCO FCW Data Sheet 1
DW-2209
**Classification : AWS A522 E2209TO-1
 AWS A5.22 E2209TO-4**
All-Weld-Metal (75% Argon I 25% CO2)**I-I. Chemical Composition**

Unit : wt%

	C	Mn	Si	P	S	Ni	Cr	Mo	N
DW-2209	0.026	0.78	0.60	0.019	0.007	8.89	23.48	3.35	0.17
E2209TO-X	≤0.04	0.5/2.0	≤1.0	10.04	10.03	7.5110	21/24	2.5/4.0	0.08/0.20

1-2. Pitting Resistance Equivalent
Pitting Resistance Equivalent = Cr + 3.3 x Mo + 16 x N = 37.26
1-3. Ferrite Content

	WRC-1992 (FN)	Shaeffler Diagram (%)	Delong Diagram (FN)
As Welded	48.9	63.7	> 18

I-4. Tensile Test

	0.2% Yield Strength (psi)	Tensile Strength (psi)	Elongation (%)	Reduction of Area %
DW-2209	95,142	122,117	30.0	46.2
E2209TO-X	---	2100,000	≥20	---

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

I-5. Impact Test

10mm x 10mm CVN @ -40° F

Number	Impact Value (ft-lbf)	Lateral Expansion (mils)	Shear (%)
1	28.0	18	30
2	29.0	19	30
3	25.0	16	30
4	28.0	16	30
5	25.0	16	30
Average	27.0	17	30

1-6. Corrosion Test

According to ASTM A-923-94 (G48-92) Method C

Critical Pitting Temp.	72°F x 24hr	
Corrosion Loss	3.8mdd No Pitting	0.69mpy No Pitting

Meets 10 mdd Maximum Corrosion Rate