SUBARC 2209

Duplex stainless steel pipe, plate, fittings and forgings have an approximate 50:50 microstructure of austenite with a ferrite matrix. This, coupled with general alloying level, confers:

- High strength compared with standard austenitic steels, e.g. type 316L.
- Good general corrosion resistance in a range of environments.
- High resistance to chloride induced stress corrosion cracking (CSCC).
- High resistance to pitting attack in chloride environments, e.g. sea water.

These alloys are finding widening application in the offshore oil/gas, chemical and petrochemical process industries, e.g. pipe work systems, flow-lines, risers, manifolds etc.

MATERIALS TO BE WELDED

There are three main areas of application. Buffer layers and clad steels. Dissimilar joints and Hardenable steels.

CLASSIFICATIONS

AWS	A5.9	ER2209
BS	EN 12072	22 9 3 N L

CHEMICAL ANALYSIS

% Carbon	0.015	**% Chromium**	23.00
% Manganese	1.600	**% Nickel**	8.200
% Silicon	0.500	**% Molybdenum**	3.200
% Sulphur	0.001	**% Copper**	0.100
% Phosphorus	0.015	**% Ferrite**	0.170

TYPICAL MECHANICAL PROPERTIES ALL WELD METAL

Tensile Strength	800 - 835 MPa
0.2% Proof Stress	560 - 602 MPa
Elongation on 4d	28 - 35%
Impact Energy -50°C	70J

* Flux Dependant

Microstructure
Multipass welds in the as-welded condition contain about 25-50% ferrite depending on dilution and heat input/cooling rate conditions

PACKING DATA

SAW Wire (DC+)

Diameter (mm)	Current		Item Number	Pack Mass (Kg)
	Amps	Volts		
2.40	350	30	078-176	25
3.20	400	32	078-178	25

Suggested flux : Afrox Flux MH or DX-9

For more information contact the Afrox Customer Service Centre,
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