

ULTRAMET 2507



These alloys are finding widening application in the offshore oil/gas, chemical and petrochemical process industries, e.g. pipework systems, flowlines, risers, manifolds etc.

Ultramet 2507 is designed for welding wrought, forged or cast super-duplex stainless steels for service normally in the as-welded condition.. 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. seawater.

CLASSIFICATIONS

BS EN 1600 E25 9 4 N L R 3 2

CHEMICAL ANALYSIS

| | | | |
|--------------|-------|------------------|-------|
| % Carbon | 0.030 | % Molybdenum | 4.000 |
| % Manganese | 1.000 | % Copper | 0.100 |
| % Silicon | 0.800 | % Nitrogen | 0.250 |
| % Sulphur | 0.010 | PRE _N | 42.00 |
| % Phosphorus | 0.020 | | |
| % Chromium | 25.00 | | |
| % Nickel | 9.500 | | |

**TYPICAL MECHANICAL PROPERTIES
ALL WELD METAL**

| | |
|------------------------|---------|
| Tensile Strength | 950 MPa |
| 0.2% Proof Stress | 750 MPa |
| Elongation on 4d | 25% |
| Impact Energy at -20°C | 35J |
| Impact Energy at -50°C | >27J |

Microstructure

Multi-pass welds in the as-welded condition consist of a duplex austenite-ferrite microstructure with an approximate 40-60% ferrite level, depending heat input/cooling conditions.

PACKING DATA

(DC+ or AC (OCV 55V Min))

| Diameter (mm) | Current (A) | Item Number | Canned Pack Mass (Kg) |
|---------------|-------------|-------------|-----------------------|
| 3.20 | 75 – 120 | 078-375 | 4.5 |
| 4.00 | 100 – 155 | 078-376 | 4.6 |

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