SFC-625

**DESCRIPTION:**
SFC-625 chemical composition is 60%Ni-22%Cr-9%Mo-3%Fe-3.6%Nb. Soft and stable arc provides beautiful bead appearance, and easy slag removal give consistent quality along with superior weldability.

**APPLICATIONS:**
It provides excellent impact toughness at -196°C, and suitable for Ni-Cr-Mo steel, carbon steel to low alloy steel overlay. i.e. Inconel 625, Incoloy 825 and 9% Ni steel welding.

**NOTE ON USAGE:**
1. Use DC (+) polarity.
2. Keep the welding parts clean, out of moisture, oil, rust, dust before welding.
3. Shielding gas: 80% Ar + 20% CO2 is recommended.
4. Proper protection to avoid N & H2 and maintain good ductivity without worm hole, i.e. wind proof is required during welding.
5. Weaving is recommended but the extent distance of the wire not more than the weld pool, crater crack can be avoid, polish is required and once crack occurs.

**WELDING POSITION:**

**TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%) :**
Weld Metal Analysis : (Shielding Gas: 80% Ar + 20% CO2)
- Carbon (C) 0.015
- Chromium (Cr) 21.0
- Nickel (Ni) 65.10
- Molybdenum (Mo) 9.30
- Manganese (Mn) 0.10
- Silicon (Si) 0.30
- Phosphorus (P) 0.0005
- Sulphur (S) 0.0005
- Iron (Fe) 0.3
- Niobium(Nb)+Tantalum(Ta) 3.3

**TYPICAL MECHANICAL PROPERTIES OF WELD METAL:**
(Shielding Gas: 80% Ar + 20% CO2)
- TS N/mm2: 760
- EL%: 36
- IV -196°C J: 72

**SIZES AND RECOMMENDED CURRENT RANGE:**

<table>
<thead>
<tr>
<th>Diameter (mm)</th>
<th>1.2mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current (Amp)</td>
<td>150-200</td>
</tr>
<tr>
<td>Voltage (Volt)</td>
<td>25-32</td>
</tr>
<tr>
<td>E.S.O.(m/m)</td>
<td>15-25</td>
</tr>
<tr>
<td>Gas Flow (l/min)</td>
<td>20-25</td>
</tr>
</tbody>
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