



# CEWELD SA Alloy 825

**TYPE** Nickel - Chromium - Molybdenum - Copper alloy for SAW welding.

**APPLICATIONS** The excellent corrosion-resistant properties of Alloy 825 make the alloy a suitable choice for a variety of difficult applications. Uses include fabricated equipment found in chemical and Petro-chemical processing, pulp and paper manufacturing, flue gas desulphurization systems and metal pickling operations.

**PROPERTIES** Fully austenitic weld metal with high resistance against stress corrosion cracking and pitting in media containing chloride ions. Good corrosion resistance against reducing acids due to the combination of Ni, Mo and Cu. Sufficient resistance against oxidizing acids. The weld metal is corrosion resistant in sea water. CEWELD® SA Alloy 825 is best to be used with CEWELD® FL 838 or CEWELD® FL 839 flux.

**CLASSIFICATION**

|        |                                 |
|--------|---------------------------------|
| AWS    | A 5.14: ERNiFeCr-1              |
| EN ISO | 18274: S Ni 8065(NiFe30Cr21Mo3) |
| W.Nr.  | 2.4858                          |
| F-nr   | 45                              |
| FM     | 6                               |

**SUITABLE FOR** G-X7NiCrMoCuNb 25 20, X1NiCrMoCuN25 20 6, X1NiCrMoCuN25 20 5, NiCr21Mo, X1NiCrMoCu 31 27 4, N08926, N08904, ALLOY 825, N08028, UNS N08825 W.Nr: 1.4500, 1.4529, 1.4539 (904L), 2.4858, 1.4563, 1.4465, 1.4577 (310Mo), 1.4133, 1.4500, 1.4503, 1.4505, 1.4506, 1.4531, 1.4536, 1.4585, 1.4586

**APPROVALS**

**WELDING POSITIONS**



**TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%)**

| C    | Si  | Mn  | P    | S    | Cr   | Ni | Mo | Ti  | Fe | Cu  |
|------|-----|-----|------|------|------|----|----|-----|----|-----|
| 0.03 | 0.4 | 0.8 | 0.02 | 0.02 | 22.5 | 42 | 3  | 0.8 | 28 | 2.8 |

**MECHANICAL PROPERTIES**

| Heat Treatment | R <sub>P0.2</sub> (MPa) | R <sub>m</sub> (MPa) | A <sub>5</sub> (%) | Impact Energy (J) ISO-V |        | Hardness |
|----------------|-------------------------|----------------------|--------------------|-------------------------|--------|----------|
|                |                         |                      |                    | RT                      | -196°C |          |
| As Welded      | 425                     | 630                  | 30                 | 100                     | 70     | HRc      |

**REDRYING** Not required

**GAS ACC. EN ISO 14175**