

## CORMET 2

FCAW

## 2 1/4Cr-1Mo CREEP RESISTING STEEL FLUX CORED WIRE

## PRODUCT DESCRIPTION

Cormet 2 is an all-positional flux cored wire suitable for welding fixed pipework. Made using a high purity steel sheath with a metal recovery of about 90% with respect to the wire.

## CLASSIFICATIONS

|             |                                                                       |
|-------------|-----------------------------------------------------------------------|
| AWS A5.29M  | E91T1-B3C/M-H4                                                        |
| AWS A5.36M  | E91T1-C1PZ-B3-H4 or<br>E91T1-M21PZ-B3-H4 (Depending on shielding gas) |
| ISO 17634-B | T62T1-1C/M-2C1M                                                       |
| APPROVALS   | TÜV (M21)                                                             |

## ASME IX QUALIFICATION

|       |        |
|-------|--------|
| QW432 | F-No 6 |
| QW442 | A-No 4 |

## CHEMICAL COMPOSITION (WELD METAL WT %)

|         | C    | Mn   | Si   | S     | P     | Cr   | Mo   | Cu   |
|---------|------|------|------|-------|-------|------|------|------|
| Min.    | 0.05 | --   | --   | --    | --    | 2.00 | 0.90 | --   |
| Max.    | 0.12 | 1.25 | 0.80 | 0.030 | 0.030 | 2.50 | 1.20 | 0.30 |
| Typical | 0.06 | 1    | 0.3  | 0.01  | 0.01  | 2.3  | 1.0  | 0.05 |

## ALL-WELD MECHANICAL PROPERTIES

| Properties after PWHT     | Min. | Typical 690°C/1h-2h |
|---------------------------|------|---------------------|
| Tensile strength (MPa)    | 620  | 680                 |
| 0.2% proof strength (MPa) | 540  | 570                 |
| Elongation (%) 4d         | 17   | 21                  |
| 5d                        | 15   | 19                  |
| Impact ISO-V(J) +20°C     | --   | 150                 |
| -20°C                     | --   | 60                  |
| Hardness (HV)             | --   | 220                 |

## OPERATING PARAMETERS

**Shielding gas:** 80%Ar-20%CO<sub>2</sub> at 20-25l/min. Proprietary gases may be used but argon should not exceed 80%. The wire is also suitable for use with 100%CO<sub>2</sub>. (Note: for 100%CO<sub>2</sub> shielding gas, voltage should be 1-2V higher)

**Current:** DC+ve ranges as below:

| Diameter (mm) | amp-volt range       | typical   | stickout  |
|---------------|----------------------|-----------|-----------|
| 1.2           | 160 - 260A, 24 - 30V | 190A, 25V | 15 - 25mm |

## PACKAGING DATA

| Diameter (mm) | Weight (kg) | Packaging | Item number |
|---------------|-------------|-----------|-------------|
| 1.2           | 16          | S300      | CORM2-12N   |

## FUME DATA (WT % TYPICAL)

| Fe | Mn | Cr <sup>3</sup> | Cr <sup>6</sup> | Ni    | Cu  | F | OES (mg/m <sup>3</sup> ) |
|----|----|-----------------|-----------------|-------|-----|---|--------------------------|
| 20 | 8  | 1               | < 1             | < 0.5 | < 1 | 8 | 5                        |

All information in this data sheet is accurate to the best of our knowledge at the time of printing. Please refer to [www.specialalloys.eu](http://www.specialalloys.eu) for any updated information.