

| | | | | | | | | | | | |
|--|--|------|-------------------|----------------|----------------|---|------|----------|------|------------|------|
| NSB-410 | FOR WELDING 12% CHROMIUM MARTENSITIC STAINLESS STEELS | | | | | DATA SHEET NO. 79 | | | | | |
| | | | | | | SPECIFICATION | | AWS A5.4 | | BS EN 1600 | |
| CLASSIFICATION | E410-26 | | E 13 R 5 2 | | | | | | | | |
| PRODUCT DESCRIPTION | A special rutile based flux with a positive ratio of chemically basic minerals to acid minerals that contains all the major alloying elements is extruded onto a high purity ferritic wire. The use of balanced silicates ensures both strength of coating and resistance to moisture absorption. | | | | | | | | | | |
| WELDING FEATURES OF THE ELECTRODE | The arc stability is excellent on both AC and DC+ as is the electrodes ability for initial arc strike and re-striking. Spatter is minimal and the slag is readily detachable leaving smooth evenly rippled seams of pleasing appearance. Metal recovery is some 130% with respect to weight of the core wire. Pre-heat and interpass temperature should be 200 °C max. | | | | | | | | | | |
| APPLICATIONS AND MATERIALS TO BE WELDED | For welding: ASTM 410 - 403 UNS S41000, S40300 BS 410521 EN56A 403517 ASTM A487 Grade CA15. In all cases a pre-heat of 150 - 250°C should be used and the component allowed to cool to room temperature prior to PWHT. | | | | | | | | | | |
| WELD METAL ANALYSIS COMPOSITION % BY Wt. | | C | Mn | Si | S | P | Cr | Ni | Mo | Cu | Fe |
| | MIN | - | - | - | - | - | 11.0 | - | - | - | |
| | MAX | 0.12 | 1.0 | 0.9 | 0.03 | 0.04 | 13.5 | 0.7 | 0.75 | 0.75 | |
| | TYPICAL | 0.06 | 0.7 | 0.4 | 0.01 | 0.02 | 12.0 | 0.1 | 0.1 | 0.23 | Bal. |
| WELD METAL PROPERTIES (ALL WELD METAL) | <u>PROPERTY</u> | | <u>UNITS</u> | <u>MINIMUM</u> | <u>TYPICAL</u> | <u>OTHERS</u> | | | | | |
| | Tensile strength | | N/mm ² | 520 | 540 | PWHT 850°C 2 HOURS FC TO 600°C AIR COOL TO RT. OTHER OPTIONS AVAILABLE | | | | | |
| | 0.2% Proof stress | | N/mm ² | - | 250 | | | | | | |
| | Elongation on 4d | | % | 20 | 35 | | | | | | |
| Reduction of Area (RA) | | % | - | 55 | | | | | | | |
| WELDING AMPERAGE AC or DC+ | Ø (mm) | 2.0 | 2.6 | 3.2 | 4.0 | 5.0 | | | | | |
| | MIN | 35 | 65 | 80 | 120 | 160 | | | | | |
| | MAX | 80 | 100 | 125 | 170 | 210 | | | | | |
| OTHER DATA | Electrodes that have become damp should be re-dried at 150°C for 1 hour. | | | | | | | | | | |
| RELATED PRODUCTS | Please contact our Technical Department for detail. | | | | | | | | | | |