

## IABCO S2Mo

### SAW wire for low alloy steels

|  |  |
|--|--|
| Product name   | IABCO S2Mo   |
| Classification EN ISO                                | 14171-A: S2Mo<br>24598-A: SMO  |
| Material No.   | 1.5425   |
| Classification AWS                                   | A5.23: EA2   |
| Approvals  | TÜV 12686.00, CE.  |
| Applications   | Submerged arc welding wire for 0.5%Mo steels. These steels are commonly used at service temperatures up to 500°C and for some sub-zero structural applications. The 0.5% alloying improves creep performance compared to CMn steels and sees the alloy being used for boiler, pressure vessel and piping construction. The good general mechanical properties also ensures use in general structural engineering applications. |
| Base materials                                       | For similar alloyed high temperature steels and cast steels, ageing resistant and steels resistant to caustic cracking.<br>ASTM: A182/A336 grade F1, A204 grades A/B/C, A209/A250 grade T1, A217 grade WC1, A335 grade P1, A352 grade LC1.<br>S355J0, E335, P285NH, P310GH, S355J0Cu, 16Mo3, P315N - S420N, P315NH - P420NH.   |
| Typical analysis of wire, weight %                   | C: 0.09<br>Si: 0.15<br>Mn: 1.05<br>Mo: 0.52  |
| Typical heat treatment <sup>(1)</sup>                | Preheat temperature: Dependent on material thickness.<br>Interpass temperature: 250°C.<br>PWHT: AW or 650°C.   |
| Mechanical properties of weld deposit <sup>(2)</sup> | 0.2% proof stress, Rp0.2%: ≥470MPa.<br>Tensile strength, Rm: ≥550MPa.<br>Elongation, 4d/5d: ≥20/22%.   |
| Other products                                       | SAW: S3Mo.<br>MIG/GMAW: A30.<br>TIG/GTAW: A30.   |

**Notes** (1) Application codes and project specifications should always be referred to for specific requirements.

(2) Actual mechanical properties will be dependent on specific welding procedure (including shielding gas, flux, PWHT etc) and should always be confirmed by approval of an appropriate welding procedure.