Union S 3 MoTiB

SAW wire, low-alloyed

Classifications		
EN ISO 14171-A	**EN ISO 14171-B**	**AWS A5.23**
S2MoTiB	SUZ	EA2TiB

Characteristics and typical fields of application

Union S 3 MoTiB is a coppered wire for submerged arc welding of unalloyed and low alloyed fine grain steel grades.

The wire is alloyed with Molybdenum and small amounts of Titanium and Boron to obtain a fine grained structure in the weld metal. This wire composition has been designed to be diluted with the base metal and therefore not recommended for multi-pass welding procedures.

It is recommended for typical welding procedures with

- a high dilution rate (e.g. > 55%), like
  - two run technology (pipe mills, longitudinal and spiral)
  - back welding (pipelay, double joint)
- single wire, tandem and multi wire configurations
- high heat-input (e.g. > 40 kJ/cm)
- for the highest CTOD values and charpy toughness requirements at -40°C / -60°
- higher strength level of weld metal (e.g. YS > 580MPa; TS > 680 MPa (API-5L: X60-X80)

Typical analysis of the wire (wt.-%)

C	Si	Mn	Mo	P	S	Ti	B
0.08	0.25	1.20	0.55	≤ 0.015	≤ 0.010	0.14	0.013

Typical fluxes to combine

SAW fluxes	EN ISO 14174
UV 310 P	SA AB 1 55 AC H5
UV 400	SA AB 1 67 AC H5
UV 418 TT	SA FB 1 55 AC H5

Packaging Formats

Diameter (mm)	Spooltype	Weight (kg)
3.0	B450 / K415-100	25
4.0	B450 / K415-100	25
4.0	COIL	1000
5.0	COIL	1000