

Classifications

AWS A5.23 / SFA-5.23

EN ISO 14171-A

EG

SZ

Characteristics and typical fields of application

Union S 3 TiB is a coppered solid wire for submerged arc welding of unalloyed and low alloyed fine grain steel grades. The wire is alloyed with small amounts of Titanium and Boron to obtain a fine grained structure in the weld metal.

It is not recommended for multi-pass welding procedures.

well suited for applications with hardness limitations in weld metal e.g. X65 for sour service.

It is recommended for typical welding procedures with

- a high dilution rate (e.g. > 55%), like
 - o two run technology (pipe mills, longitudinal and spiral)
 - o single pass back welding (pipelay, double joint)
- single wire, tandem and multi wire configurations
- high heat-input
- for the highest CTOD values and charpy toughness requirements at -40°C / -60°
- higher strength level of weld metal e.g. $R_{p0.2} > 580$ MPa, $R_m > 680$ MPa (API-5L: X60-X80)

Typical analysis

	C	Si	Mn	Mo	B	Ti	S	P
wt.-%	0.07	0.3	1.55	-	0.013	0.15	≤ 0.005	≤ 0.015

Operating data

Dimension mm

3.2

4.0

5.0

Recommended SAW flux:

UV 309 P

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Approvals

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