SAW (submerged arc welding) wires for mild and low alloyed steel

FLIESS SINCE 1915

UP-100 Mo (S2Mo)

Classification DIN EN ISO	Classification AWS
14171-A S2Mo, 24598-A SMo	A5.23 EA2
Approvals	**Material No.**
TÜV 03275.05, CE, DB 52.045.07, GL	1.5425

Characteristics and application

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.
S355J0, E335, P285NH, P310GH, S355J0Cu, 16Mo3, P315N - S420N, P315NH - P420NH, fine grain structural steels up to S460N/P460N, large-diameter pipes up to L485MB
ASTM: A182/A336 grade F1, A204 grades A/B/C, A209/A250 grade T1, A217 grade WC1, A335 grade P1, A352 grade LC1

Typical analysis in %

C	Si	Mn	Mo
0,09	0,15	1,05	0,52

Typical heat treatment

Preheat temperature: Dependent on material thickness
Interpass temperature: max. 250°C
PWHT: AW or 650°C

Mechanical properties of the pure weld metal

Yield strength in Mpa	Tensile strength in Mpa	Elongation in %	Charpy-V-Value (ISO-V) in J
≥470	≥550	4d/5d: ≥20/22	-