

Classifications

low-alloy creep resistant

EN ISO 3580-A:

AWS A5.5:

E Mo B 4 2 H5

E7018-A1

Characteristics and field of use

Basic covered electrode. Very good welding characteristics in out of position work; easy slag removal; cold toughness at temperatures as low as $-40\text{ }^{\circ}\text{C}$ ($-40\text{ }^{\circ}\text{F}$). High temperature resistant up to $500\text{ }^{\circ}\text{C}$ ($932\text{ }^{\circ}\text{F}$) and creep resistant up to $550\text{ }^{\circ}\text{C}$ ($1022\text{ }^{\circ}\text{F}$). Particularly suitable for circumferential welds in conduit pipes as well as boiler, pressure vessel, header and nuclear reactor fabrication. Redry for 2 h at $250 - 350\text{ }^{\circ}\text{C}$ ($482 - 662\text{ }^{\circ}\text{F}$).

Base materials

Boiler steels P235GH, P265GH, P295GH, 16 Mo 3, 20 MnMo 45, 16 Mo 5, 15 NiCuMoNb 5, 17 Mn-MoV 64; fine grained structural steels S355N - S460N, P355NH - P460NH, P355NL1 - P460NL1; pipe steels L360NB - L415NB, L360MB - L485MB, X 52 - X 70; ASTM A 355 Gr. P1; A161-94 Gr. T1; A217 Gr. WC1; A182M Gr. F1; A204M Gr. A, B, C; A250M Gr. T1

Typical analysis of all-weld metal (Wt-%)

C	Si	Mn	Mo
0.06	0.35	0.8	0.45

Mechanical properties of all-weld metal

Heat Treatment	Yield strength 0.2%	Tensile strength	Elongation ($L_0=5_g0$)	Impact values ISO-V	
	MPa	MPa	%	+20 °C	-40 °C:
untreated	480	560	20	120	47

Operating data



Polarity = +

Dimensions (mm)

Amperage A

2.5 x 250	70-110
3.2 x 350	100-140
4.0 x 350	140-190
4.0 x 450	140-190
5.0 x 450	180-250

Approvals and certificates

TÜV (00902.), DB (10.132.31), ABS, LR, DNV