

## Classifications

low-alloy creep resistant

EN ISO 3580-A:

AWS A5.5:

E Mo B 4 2 H5

E7018-A1H4R

## Characteristics and field of use

Basic coated Stick electrode for high quality welded joints on creep resistant boiler and pipe steels, preferred for 16Mo3. Approved for long-term use in operating temperature ranges up to 550°C. Particularly high toughness and crack resistance. Very low hydrogen content (under AWS conditions HD ≤ 4 ml/100g). Deposition efficiency about 115%.

## Base materials

creep-resistant steels and cast steels of the same type, steels resistant to ageing and to caustic cracking 16Mo3, 20MnMoNi4-5, 15NiCuMoNb5, S235JR-S355JR, S235JO-S355JO, S450JO, S235J2-S355J2, S275N-S460N, S275M-S460M, P235GH-P355GH, P355N, P285NH-P460NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P265GH, L245NB-L415NB, L450QB, L245MB-L450MB, GE200-GE300 ASTM A 29 Gr. 1013, 1016; A 106 Gr. C; A, B; A 182 Gr. F1; A 234 Gr. WP1; A 283 Gr. B, C, D; A 335 Gr. P1; A 501 Gr. B; A 533 Gr. B, C; A 510 Gr. 1013; A 512 Gr. 1021, 1026; A 513 Gr. 1021, 1026; A 516 Gr. 70; A 633 Gr. C; A 678 Gr. B; A 709 Gr. 36, 50; A 711 Gr. 1013; API 5 L B, X42, X52, X60, X65

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

C	Si	Mn	Mo
0.08	0.35	0.8	0.45

## Mechanical properties of all-weld metal

Heat Treatment	Yield strength 0.2%	Tensile strength	Elongation (L0=5 <sub>0</sub> )	Impact values ISO-V	
	MPa	MPa	%	+20°C:	-50°C:
untreated	510	590	24	170	60

## Operating data



Polarity = +

Dimensions (mm)	Amperage A
2.5 x 250/350	80-110
3.2 x 350	100-140
4.0 x 350/450	130-180
5.0 x 450	190-230

## Approvals and certificates

TÜV (0019.), KTA 1408.1 (8053.), DB (10.014.14), ABS (E 7018-A1), DNV (NV 0.3Mo), GL (15 Mo 3), RS (-), Statoil, LTSS, SEPPOZ, CRS (3YH10), CE, NAKS

## Similar alloy filler metals

Stick electrode:	FOX DMO Ti	Gas welding rod:	DMO
TIG rod:	DMO-IG	Wire/flux combination:	EMS 2 Mo with BB 24 BB 306, BB 400, BB 418 TT BB 421 TT
Solid wire electrode:	DMO-IG		
Flux cored wire:	DMO Ti-FD		