

Classifications

EN ISO 2560-A	EN ISO 2560-B	AWS A5.1 / SFA-5.1	AWS A5.1M
E 42 3 B 1 2 H10	E4916 AU	E7016	E4916

Characteristics and typical fields of application

Basic double coated electrode with excellent weldability in all positions except vertical-down.

Especially suited for out-of-position welding thanks to the well controlled arc. Excellent root penetration. Good suitability for welding on AC. Minimum spatter loss, very easy slag removal with uniform beads. well-suited for small transformers. Low hydrogen content in the weld deposit (HD < 10 ml/100 g deposit).

Base materials

Steels up to a yield strength of 420 MPa (60 ksi)

S235JR-S355JR, S235JO-S355JO, S235J2-S355J2, S275N-S420N, S275M-S420M, P235GH-P355GH, P355N, P285NH-P420NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P265GH, L245NB-L415NB, L245MB-L415MB, GE200-GE240

ASTM A 106 Gr. A, B, C; A 181 Gr. 60, 70; A 283 Gr. A, C; A 285 Gr. A, B, C; A 414 Gr. A, B, C, D, E, F, G; A 501 Gr. B; A 516 Gr. 55, 60, 65, 70; A 573 Gr. 58, 65, 70; A 588 Gr. A, B; A 633 Gr. A, C, D; A 662 Gr. A, B, C; A 678 Gr. A, B; A 711 Gr. 1013; API 5 L Gr. B, X42, X52, X56, X60

Typical analysis

	C	Si	Mn
wt.-%	0.06	0.65	1.05


Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength R _{p0.2}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact energy ISO-V KV J	
	MPa	MPa	%	20°C	-30°C
u	440 (≥ 420)	550 (500 - 640)	28 (≥ 20)	170	50 (≥ 47)
s	400	520	28	170	50

u untreated, as welded

s stress relieved 580 °C/2h / furnace down to 300 °C / air

Operating data

	Polarity	DC+ / AC	Dimension mm	Current A
	Electrode identification	7016 E 42 3 B	2.0 x 300	40 – 70
	Redrying	300 °C/2 h	3.2 x 350	60 – 90
			3.2 x 450	95 – 150
			4.0 x 450	140 - 190
			5.0 x 450	190 – 250

Approvals

TÜV (10572), DB (10.138.12), LR, DNV, CE