

EN ISO 2560-A: E 42 5 B 4 2 H5
AWS A5.1: E7018-1H4

BÖHLER AWS E7018-1

SMAW electrode, unalloyed, basic coated

Description

Basic coated electrode engineered for high-quality welds. Excellent strength and toughness properties. Also suitable for welding steels with low purity and high carbon content. Metal recovery >110%. Good weldability in out-of-position work except for vertical-down. Suitable for welding in steel construction, boiler and container fabrication, vehicle construction, shipbuilding, and machine construction as well as for buffer layers when building up on high carbon steels.

Typical composition of All-weld Metal

	C	Si	Mn
wt-%	0.07	0.5	1.1

Mechanical properties of All-weld Metal

(*)	u	s
Yield strength R _e MPa:	470 (≥420)	410
Tensile strength R _m MPa:	540 (500-640)	500
Elongation A (L ₀ =5d ₀) %:	26 (≥20)	27
Impact strength ISO-V KV J	+20°C: 160	180
	-20°C: 130	150
	-50°C: (≥47)	80

(*) u untreated, as welded
s stress relieved 600°C/2h/furnace down to 300°C/air

Operating Data



re-drying if necessary:
300-350°C, min. 2h

Electrode identification:
BÖHLER AWS E7018-1 E 42 5 B

ø mm	L mm	amps A
2.0	250	50-70
2.5	350	80-110
3.2	350	100-140
4.0	450	130-180
5.0	450	180-230



Base Materials

S235JR-S355JR, S235JO-S355JO, S235J2-S355J2, S275N-S420N, S275M-S420M, S275NL-S420NL, S275ML-S420ML, P235GH-P355GH, P275NL1-P355NL1, P275NL2-P355NL2, P215NL, P265NL, P355N, P285NH-P420NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P265GH, L245NB-L415NB, L245MB-L415MB, GE200-GE240, GE300, ship building steels: A, B, D, E, A 32-F 36, A 40-F 40

ASTM A 106 Gr. A, B, C; A 181 Gr. 60, 70; A 283 Gr. A, C; A 285 Gr. A, B, C; A 350 Gr. LF1, LF2; A 414 Gr. A, B, C, D, E, F, G; A 501 Gr. B; A 513 Gr. 1018; A 516 Gr. 55, 60, 65, 70; A 573 Gr 58, 65, 70; A 588 Gr. A, B; A 633 Gr. A, C, D, E; A 662 Gr. A, B, C; A 707 Gr. L1, L2, L3; A 711 Gr. 1013; A 841 Gr. A, B, C; API 5 L Gr. B, X42, X52, X56, X60

Approvals

TÜV-D, ABS, BV, DNV, GL, LR, CE