

Classifications

EN ISO 2560-A	AWS A5.5 / SFA-5.5
E 42 6 3Ni B 3 2 H5	E7018-C2L H4

Characteristics and typical fields of application

Basic coated Ni-alloyed electrode for cryogenic steels and Ni-alloyed structural steels.
Cold tough at subzero temperatures as low as -105°C .
Low hydrogen content $<5\text{ ml} / 100\text{ g}$.

Base materials

Fine grained structural steels S275N – S420N; low temperature grades S275NL – S420NL;
Low temperature special grades P275NL2 – P355NL2, S420NL, 12Ni14, X12Ni5; 11MnNi5-3; 13MnNi6-3;
ASTM A633 Gr. E; A572 Gr. 65; A203 Gr. D, A333 and A334 Gr. 3, A350 Gr. LF3

Typical analysis

	C	Si	Mn	Ni
wt.-%	0.04	0.3	0.8	3.4

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

Condition	Yield strength	Tensile strength	Elongation A	Impact energy ISO-V KV J		
	$R_{p0.2}$	R_m	$(L_0=5d_0)$	-60°C	-80°C	-100°C
	MPa	MPa	%			
u	450 (≥ 420)	550 (≥ 490)	25 (≥ 22)	120 (≥ 47)	70	40

u untreated, as welded

Operating data

	Polarity	DC + / AC	Dimension mm	Current A
	Electrode identification	FOX 3,5 Ni / E 42 6 3Ni B / E7018-C2L	3.2 × 350	90 – 140
	Redrying	300-350°C/2h	4.0 × 350	115 – 180
			5.0 × 450	180 – 255

Approvals

DNV, CE