Phoenix SH Schwarz 3 K Ni

Stick electrode, low-alloyed, basic

Classifications

EN ISO 2560-A	EN ISO 2560-B	AWS A5.5	AWS A5.5M
E 50 4 1NiMo B 4 2 H5	E 6218-GA	E9018-G	E6218-G

Characteristics and typical fields of application

Basic covered NiMo alloyed electrode with a weld metal of special metallurgical purity for nuclear reactor construction. Quality controlled according to KTA 1408.2; very low H2-content ≤ 5 ml/100 g; NDT-tested. Used preferably for the welding of steels in the construction of nuclear reactors, boiler and pressure vessels; for fine grained structural steels up to S500Q.

Base materials

S460N; S460M; S460Q-S500Q; P460N; P460NH; 415NB; L415MB-L485MB; L415QB-L485QB; 20MnMoNi4-5; 22NiMoCr3-7; 15NiCuMoNb5-6-4 (WB 36); 11NiMoV5-3 (Welmonil 43); 12MnNiMo5-5 (Welmonil 35; GS-18 NiMoCr 3 7; GE300,

ASTM A 302 Gr. A, B, C, D; A 508 Cl 2; A 225 Gr. C; A 517 Gr. A, B, C, E, F, H, J, K, M, P; A 533 Cl 1 Gr. B; A 572 Gr. 65; A 738 Gr. A; A 852; API 5 L X60, X65, X70, X80, X60Q, X65Q, X70Q

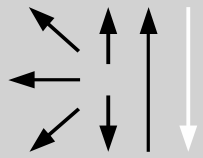
Typical analysis of all-weld metal (wt.-%)

	C	Si	Mn	P	S	Mo	Ni	Cu
wt-%	0.06	0.30	1.25	≤ 0.01	≤ 0.01	0.40	0.95	≤ 0.08

Mechanical properties of all-weld metal

Heat-treatment	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact work ISO-V KV J	
	MPa	MPa	%	+20 °C	–40 °C
aw	540	620	20	140	50
sr	500	590	21	140	47

Operating data



Polarity:	Redrying:	ø mm	L mm	Amps A
DC (+)	300 – 350 °C / 2 h	2.5	350	70 – 110
	(572 – 662 °F)	3.2	350	100 – 150
		4.0	350	140 – 200
		5.0	450	170 – 250

Approvals

TÜV (00512 + 08100), CE