

Classifications

EN ISO14171-A	AWS A5.17
S3	EH10K

Characteristics and typical fields of application

Union S EH10K is a copper coated wire for submerged arc welding of unalloyed and low alloyed fine grain steel. It is universally applicable in shipbuilding, steel construction and in the fabrication of containers and pressure vessels.

It is particularly suitable for multi-pass welding of thick plates. Very good slag detachability also for narrow gap welding.

Base materials

Steels up to a yield strength of 460 MPa.

S235J2G3 - S355J2G3, GE200, GE240, GE260, S235JRS1 - S235J4S, AH, DH, EH, S255N - S380N, P235GH, P265GH, S255N, P295GH, S235G2T, S255GT, S355GT, L210 - L360NB, P235G1TH, P255G1TH ASTM A36 Gr. all; A 106 Gr. A, B A214; A 242 Gr.1-5; A266 Gr. 1, 2, 4; A283 Gr. A, B, C, D; A285 Gr. A, B, C; A299 Gr. A, B; A328; A366; A515 Gr. 60, 65, 70; A516 Gr. 55, 60, 70; A556 Gr. B2A; A570 Gr. 30, 33, 36, 40, 45; A572 Gr. 42, 50; A606 Gr. all; A607 Gr. 45; A656 Gr. 50, 60; A668 Gr. A, B; A907 Gr. 30, 33, 36, 40; A841; A851 Gr. 1, 2; A935 Gr.45; A936 Gr. 50; API 5L X42-X56

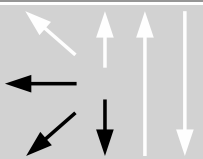
Typical analysis of the wire (wt.-%)

	C	Si	Mn	P	S	Cu
Wire	0.08	0.05	1.5	0.015	0.005	0.05

Typical Mechanical properties of all-weld metal

Union S EH10K with flux combination	Yield strength R _{p0,2}	Tensile strength R _m	Elongation A (L ₀ =4d ₀)	Impact work ISO-V CVN J	
	MPa	MPa	%	-40°C	-60°C
UV C 418 TT (AW)	470	560	30	90	70

Operating data



SAW – Single wire process DCEP or AC
Interpass temp. 180 - 220°C, Preheat according to base material

Approvals

Wire/flux combination: -

Size and Packaging

Size mm	Spooling	Weight (Kg)
1.6	Basket (K415)	25
2.0	Basket (K415)	25
2.4	Basket (K415)	25
3.2	Basket (K415)	25
4.0	Basket (K415)	25