ESAB Welding & Cutting Products

CERTIFICATE OF CONFORMANCE
TO SPECIFICATION REQUIREMENTS
FOR WELDING ELECTRODES AND FLUXES

SECTION NO.: 5

SUPPLIED TO:

QUANTITY:
DIAMETER:
HEAT:
FLUX LOT:

This is to certify that Alloy Shield 70S Electrode, Classification EC1, and ESAB OK Flux 10.71 Submerged Arc Welding Flux, AWS/ASME Classification F7A5-EC1-H8, as supplied on the above order, are of the same classification, manufacturing process and material requirements as the flux-wire combination tested on October 22, 2009.

All tests required by Specification AWS/ASME SFA5.17 (F-No. 6) and ANSI/AWS A5.01 Schedule G were performed. The materials tested met all the requirements for Classification F7A5-EC1-H8. The chemical composition of the electrode and mechanical properties of the deposited weld metal were as follows:

CHEMICAL COMPOSITION OF DEPOSITED WELD METAL (A No. 1)

C	Mn	Si	S	P	Cu	Total Other Elements
.054	1.61	.54	.013	.014	.08	<.50

WELD TEST NO.: B1-4245-09-HRD09-1 AS-WELDED

Radiography Test: Satisfactory

Tensile Test:

Yield Strength, ksi (MPa)	70.2 (484)
Tensile Strength, ksi (MPa)	81.6 (563)
Elongation, 2-in. %	31.0

CHARPY V-NOTCH IMPACT

Ft-lbs @ -50°F	(Joules @ -46°C)
45	(61)
33	(45)
16	(22)
42	(57)
24	(33)
33 (avg. 3)	(45) (avg. 3)

Welding Conditions:

Arc Voltage:	29
Amperage:	550 DCEP
Travel Speed:	20 ipm
Diameter:	5/32 in.

Base Plate: A36
No. of Layers: 8 layers of 2 passes, 1 layer of 3

WELD METAL DIFFUSIBLE HYDROGEN
ml/100g
6.5, 4.9, 6.6, 6.4 (6.1 avg.)

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