

MOLYTEN

CLASSIFICATIONS

AWS A/SFA 5.5 E7018-A1

IDENTIFICATION: Name Printed

CHARACTERISTICS

A low-hydrogen, iron-powder electrode for welding of 0.50% Mo creep resistant steels. It gives excellent arc stability, arc smoothness and very easy slag removal. Weld metal of X-ray quality.

TYPICAL APPLICATIONS

Welding of 0.50% Mo and 0.50% Cr- 0.50% Mo steels used in pressure vessels, boilers and pipelines. Suitable for joining F1 grade of SA-182/182M (P. No.3) Gr. A of SA 204/204M, Gr. T1/T1A/T1B of SA 209/209M, Gr. WCI of SA 217/217M etc.

WELD METAL CHEMISTRY, (%)

C - 0.05 - 0.09	S - 0.030 max.	Diffusible H ₂
Mn - 0.50 - 0.90	P - 0.030 max.	Content <5 ml/100gm
Si - 0.25 - 0.55	Mo - 0.40 - 0.65	of weld metal

MECHANICAL PROPERTIES- ALL-WELD

Condition	UTS MPa	YS MPa	% Elong. (L=4xd)	CVN Impacts,J 27°C	Hardness, BHN
PWHT at 620°C for 1hr	510-610	425-520	25-30	140-200	200 max.

APPROVALS

ABS	E7018-A1	NPCIL	E7018-A1
BHEL	E7018-A1		
Toyo	E7018-A1		

CURRENT CONDITIONS: AC(70V), DC (+)

6.3	5.0	4.0	3.2	2.5
260-310	190-250	140-180	100-140	60-90

WELDING POSITIONS

F, H, V-up, OH

REDRYING CONDITIONS

300°C for 1 hour

(Optionally also available in vacuum-packed condition.)

PACKING DATA

Dia., mm	6.3	5.0	4.0	3.2	2.5
Length, mm	450	450	450	450	350
Pcs per carton, Nos	36	53	78	115	250
Cartons / box	4	4	4	4	4
Pcs per box, Nos	144	212	312	460	1000
Approx. Wt. of 1000 pcs,kg	139	93	63	43	20

SPECIAL TESTS

TEST TYPE	REMARKS
Creep Rupture Test	Specimen did not rupture at 540°C, 150 MPa stress for min. 1000 hrs.



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