

		CORPORATE STANDARD		AA7710112	
				Rev. No.01	
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CARBON STEEL ELECTRODES FOR SHIELDED METAL ARC WELDING CLASS E7018					
1.0 SCOPE This standard covers low hydrogen type Carbon Steel arc welding electrodes of Class E7018 to SFA 5.1 of ASME Section-II Part C.					
2.0 APPLICATION These electrodes are used for welding of low and medium carbon steel pressure vessel components, attachments to pressure parts, radiographic quality.					
3.0 COMPLIANCE TO STANDARD This standard is made to the Class E7018 of SFA 5.1 of ASME Section-II C.					
4.0 CHEMICAL COMPOSITION As per SFA 5.1 of ASME Section-II C.					
5.0 MECHANICAL PROPERTIES As per SFA 5.1 of ASME Section-II C.					
6.0 FILLET TEST As per SFA 5.1 of ASME Section-II C.					
7.0 RADIOGRAPHIC TEST As per SFA 5.1 of ASME Section-II C.					
8.0 METHODS OF MANUFACTURE The welding consumable may be manufactured by any method which will yield the requirements of this standard.					
9.0 STANDARD FORMS, TOLERANCES AND FINISH					
9.1 The standard size shall be of dia 2.0, 2.5, 3.15, 4.0, 5.0, 6.3 mm.					
9.2 The tolerance on the diameter of core wire shall be as per SFA 5.1 of ASME Section-II C.					
9.3 Core Wire & Covering The electrodes shall meet the requirements of clause 3.2 of SFA 5.02.					
Revisions: Clause 19.4 of MOM of MRC-W			APPROVED: INTERPLANT MATERIAL RATIONALISATION COMMITTEE – MRC(W)		
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9.4 Exposed Core

The electrodes shall meet the requirements of clause 3.3 of SFA 5.02.

10.0 IDENTIFICATION

All electrodes shall be identified as per SFA 5.1.

11.0 TEST REQUIREMENTS

Test requirements as per SFA 5.1 of ASME Section-II C. Batch/Lot classification shall be Class C1 and level of testing shall be Schedule 4 or I as per SFA 5.01.

12.0 TEST CERTIFICATES

The supplier shall submit 3 copies of original test certificates in English giving the following information

1. BHEL Purchase Order No.
2. Supplier's Name, Brand Name and Size
3. BHEL Standard No: AA7710112 and AWS class
4. Batch Number & Quantity
5. Test results as per clause 11.0 of this standard

13.0 ACCEPTANCE

Acceptance shall be based on as per the requirement of this standard. Additional requirements if any shall be as agreed between supplier and purchaser.

14.0 PACKING

The electrodes shall be suitably packed to ensure against damage during shipment or storage under normal condition.

15.0 MARKING

Each carton shall have the following information printed on them.

1. Brand name
2. AWS Specification and Class
3. Size
4. Batch No. and Date of manufacture
5. Quantity and Net weight
6. Electrode drying requirements

16.0 For rationalized sizes and material codes, refer CMCC of Welding Consumables (for BHEL reference only)**17.0 REFERRED STANDARDS** (Latest Publications including Amendments)

- 1) ASME Section-II C