

The Pre-qualification criteria given below shall be filled separately for each consumable being offered by the supplier.

S No	Pre –Qualification Criteria	Bidder remarks
1	Bidder shall be a manufacturer of Welding Consumables being tendered or an agent of the same. If the offer is quoted by agent, letter of authorization duly signed by the manufacturer is required.	
2	Bidder shall have successfully supplied electrodes for crack starter bead welding to any govt. Organizations/ PSUs/ Public Ltd./ Company/Reputed Industries. Purchase orders copies (01.01.2017 or later is only acceptable) and related material test certificates to be submitted along with offer. Note: Successfully supplied means – supplied and accepted.	
3	Welding Consumables brand name and its data sheet shall be provided along with offer.	
4	Manufacturing plant address of the quoted electrode shall be provided along with offer.	
5	BHEL/End customer reserve the right to inspect the item ordered at vendor's works.	
6	Suppliers shall submit manufacturing process flow chart (Raw material to finished product) along with offer.	
7	Bidder shall confirm to meet ATMW-TDC-01 rev 00. Any deviations shall be specified with offer. Acceptance of such offers is subject to acceptance by BHEL's customer NPCIL.	

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BHARAT HEAVY ELECTRICALS LIMITED
TIRUCHIRAPALLI-620 014

ATMW-TDC-01

SPECIFICATION FOR CRACK STARTER ELECTRODE FOR DROP
WEIGHT TEST

15.06.2021

ATMW-TDC-01 Rev 00

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Nature of Revision

Rev 00: Initial Issue.

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1.0 SCOPE

1.0 This document specifies the technical requirements for crack starter electrode for performing drop weight test as per ASTM standard E208.

2.0 TECHNICAL REQUIREMENTS

2.1 The electrode is envisaged to be used for making crack-starter welds on P2 type specimens specified in ASTM E208. The specimens shall be subjected to Drop Weight Test in accordance with ASTM E208.

2.2 The Drop Weight Test is to be conducted at -10°C for the following grades of materials:

- i) SA350 LF2 as per ASME Section II Part A,
- ii) 20MnMoNi55 quenched and tempered steel, and,
- iii) Weld metal produced by welding consumables of chemical composition matching with the aforementioned materials.

2.3 The test temperature for the Drop Weight Test shall be -10°C. A No Break Performance is to be obtained for two consecutively tested specimens, tested in accordance with ASTM E208.

2.4 In order to qualify the crack starter electrode for the above mentioned conditions, three P2 type specimens shall be Drop Weight tested at +40°C, for each of the materials. All three specimens shall show initiation of a crack, in accordance with ASTM E208.

3.0 OTHER REQUIREMENTS

3.1 The supplier shall manufacture the entire ordered quantity, and dispatch a pilot quantity of 100 electrodes for Lot Qualification at BHEL Trichy. The pilot quantity shall be subjected to testing described in para 2.4 above.

3.2 Upon successful Lot Qualification, dispatch clearance shall be given by BHEL Trichy for dispatch of bulk quantity. The supplier shall, till such time, preserve the entire quantity of the Lot in good condition.

3.3 Each Lot shall be accompanied by a Test Certificate, containing all relevant details such as Purchase Order number, Date of manufacture, actual chemical composition, brand name, Lot number, Size etc.

3.4 The consumable shall be packed in moisture proof packing, capable of withstanding at least 5 years of storage. Each unit of packaging shall have at least following identification details: Date of manufacture, Lot number, Size, Net weight, brand name.

3.5 A legible imprint of brand name/AWS classification shall be available at the grip end of the electrode too.