



**WELDING CONSUMABLE PURCHASE INSTRUCTION FOR
SMAW ELECTRODE ENiCrFe-3**

1.0 GENERAL:

- 1.1 The electrodes shall comply with requirements specified in the Latest Edition and Addenda (Applicable on the date of Issue of Purchase Order) of ASME Sec.II.C.SFA-5.11, ENiCrFe-3. All tests, acceptance criteria shall be in accordance with this. Additional requirements specified in this document shall also be complied.
- 1.2 The Electrodes shall be supplied in sizes and quantities as specified in the purchase order.
- 1.3 The electrodes are intended for use in radiographic quality butt welded joints in high pressure boiler tubes and pipes. The electrode shall be suitable for joining dissimilar materials such as Super 304H to steel and steels to nickel Alloys. The electrode shall be suitable for welding joints that undergo stress relieving.
- 1.4 Every batch of electrodes shall be inspected & test certificates countersigned by Inspecting authority approved by IBR for country of origin (latest).
- 1.5 The electrode shall be of Non-Synthetic type with an alloyed core wire that nearly matches with weld metal chemistry.

2.0 Chemical Composition:

The chemical composition of the undiluted weld metal shall confirm to ASME SECII.C SFA-5.11, ENiCrFe-3.

3.0 MECHANICAL PROPERTIES:

The tension test and bend test shall meet the requirements of ASME SECII.C SFA-5.11 ENiCrFe-3.

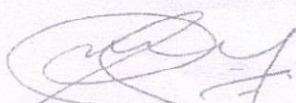
4.0 RADIOGRAPHIC SOUNDNESS:

The radiographic test shall meet the requirements of ASME SECII.C SFA-5.11 ENiCrFe-3.

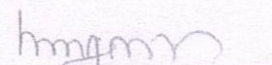
5.0 SIZE:

The electrodes shall be supplied in diameters and lengths as specified in the purchase order. The tolerance on diameter and length shall be as per SFA-5.11.

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6.0 CORE WIRE & COVERING:

The electrodes shall meet the requirements of clause 3.2 of SFA-5.02.

7.0 EXPOSED CORE:

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

8.0 IDENTIFICATION:

All electrodes shall be identified as per SFA-5.11.

9.0 PACKAGING:

9.1 Electrodes in standard quantity shall be wrapped tightly in a corrugated paper and then packed in moisture proof polythene bags and sealed. These shall be further packed either in hermetically sealed containers or in cardboard packets and then packed in polythene bags and sealed. The number of electrodes per packet shall be such that the net weight of each packet does not exceed 5Kg. Packets shall be further packed in cardboard cartons each weighing not more than 25kg. The Cartons shall be packed in waterproof boxes with crates so as to ensure no damage during shipment and normal storage conditions.

9.2 Weight of each crate shall not exceed 1000kg.

9.3 Markings of packages shall be as per clause 4.6 of SFA-5.02.

10.0 TESTING & CERTIFICATION:

10.1 Each consignment of electrodes supplied shall be from one batch only.

10.2 Batch /Lot classification shall be Class C1 as per SFA-5.01 Filler metal procurement guidelines of ASME Sec.II.C. (Latest Edition and Addenda)

10.3 The Level of Testing shall be Schedule J as per SFA-5.01 Filler metal procurement guidelines of ASME Sec.II.C. (Latest Edition and Addenda)

10.4 Three copies of Original Test certificates in English countersigned by Inspecting Authority (Latest) approved by IBR for country of origin giving details of following tests done in compliance with this Purchase Instruction and ASME Sec.II.C, SFA-5.11, ENiCrFe-3 shall be sent.

10.5 The Testing Authority shall certify that supplies made against the batch conform to the requirements of the Latest Edition & Addenda (Applicable on the date of issue of Purchase Order) of ASME Sec.II.C.SFA-5.11, ENiCrFe-3.

S. No.	Pre –Qualification Criteria ENiCrFe-3	Bidder remark
1	<p>Bidder shall be a manufacturer of the Quoted SMAW Electrode / an authorized dealer of the same.</p> <p>If the offer is quoted by agent, letter of authorization and agreement duly signed by the manufacturer is required to consider the offer.</p>	
2	<p>Bidder (Principle Supplier) shall have successful experience for supplying of ENiCrFe-3 SMAW Electrode to any govt. Organizations/ PSUs/ Public ltd./ Company/ Reputed Industries.</p> <p>Purchase orders copies/ related documents to be submitted along with offer to consider the offer.</p> <p>Note: <u>Successful experience means – supplied and accepted.</u></p>	
3	<p>Kindly provide the self-declaration for “successfully supplied and accepted by customer” on Principle Supplier letter head regarding document S . No. 2.</p> <p>In self-declaration document, kindly provide the following details:</p> <ul style="list-style-type: none"> • PO number • PO date • PO items description • Brand Name • Supplied Quantity • Customer Name • Manufacturer Name 	
4	<p>Quoted Welding Consumables brand name shall be provided along with offer.</p>	
5	<p>Mill address (manufacturing address) shall be provided along with offer.</p>	
6	<p>Mill capacity for SMAW Electrode (By Principle Supplier) shall be provided along with offer.</p>	
7	<p>Manufacturer shall submit manufacturing process flow chart (Raw material to finished product) along with offer for SMAW Electrode.</p>	
8	<p>Manufacturer (Principle Supplier) shall submit a valid ISO 9001 certificate or Quality management system certificate or Written down procedure.</p>	

S. No.	Pre –Qualification Criteria ENiCrFe-3	Bidder Remark.
9	Shall confirm to Technical Specifications as per as per WCPI - 225/02 .	
10	<p>Vendor should give confirmation to BHEL's Technical Specification. Any deviation from the Specification are to be mentioned in the "Bidder remark Space".</p> <p>If There is no deviation vendor should indicate "No Deviation".</p>	
11	Original Certified material test report in English signed by the manufacturer giving details of tests done in compliance with this WCPI - 225/02 and ASME Sec.II.C.SFA-5.11 ENiCrFe-3 shall be sent along with supply.	
12	The testing authority shall certify that the batch of material supplied is conforming to the requirements of the latest edition and addenda (applicable on the date of issue of purchase order) of ASME Sec.II.C. SFA-5.11 ENiCrFe-3 .	
13	<p>"A copy of valid IBR Approval Certificate for the brand being supplied to be submitted along with supply. It is mandatory that, Manufacturer should possess a valid IBR certificate (for the brand being supplied) during the manufacturing period.</p> <p style="text-align: center;">or</p> <p>"Original test certificates in English countersigned by Inspecting Authority (latest) approved by IBR for country of origin giving details of the tests done in compliance with this purchase instruction (as per WCPI - 225/02) and ASME Sec.II.C, SFA-5.11, ENiCrFe-3 shall be sent".</p>	