



BHARATH HEAVY ELECTRICALS LIMITED
TIRUCHIRAPALLI-620 014
WELDING TECHNOLOGY CENTRE

Doc. Number: WCPI – 114

Revision No.: 10

Date: 31/05/2022

WELDING CONSUMABLE PURCHASE INSTRUCTION FOR LOW
ALLOY STEEL BARE SOLID FILLER ROD ER90S-B91

1.0 GENERAL:

- 1.1 The Rod 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-5.28, ER90S-B91. All tests, acceptance criteria shall be in accordance with this. Additional requirements specified in this document shall also be complied.
- 1.2 The Rods shall be supplied in sizes and quantities as specified in the Purchase Order.
- 1.3 The rods are intended for use as filler for radiographic quality butt welded joints in high pressure boiler tubes and pipes.

2.0 Chemical Composition:

- 2.1 The chemical composition of the Rods shall conform to ASME SECII.C SFA5.28-ER90S-B91.

3.0 Mechanical Properties:

- 3.1 The mechanical properties of the Rods shall conform to ASME SECII.C SFA5.28-ER90S-B91.

4.0 USABILITY AND RADIOGRAPHIC SOUNDNESS:

- 4.1 The Rod when used as filler in GTAW with 100 % Argon shielding shall deposit Weld metal that flows freely, uniformly without sputter or other defects and shall exhibit excellent wetting characteristics. The resultant weld metal shall be smooth and uniform with no visible evidence of cracks/porosity or other defects and shall meet radiographic soundness requirements.

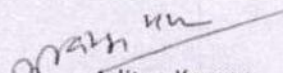
5.0 FORM & SIZE:

- 5.1 The Rods shall be supplied in straight lengths of 1000 mm +15, -0 mm and as specified in the Purchase Order. The tolerance on diameter shall be as per SFA-5.02.

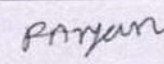
6.0 FINISH & UNIFORMITY:

- 6.1 The Wires shall meet the requirements of clause 4.2 of SFA-5.02. The rod shall be furnished with a bright finish, chemically cleaned with no copper.

PREPARED:


Aditya Kumar
Sr. Engineer / WTC

REVIEWED & APPROVED:


R Arivazhagan
Sr. Manager / WTC



7.0 IDENTIFICATION:

7.1 Each Rod shall have the Classification designation "ER90S-B91", brand/trade designation marked or embossed on both ends for positive identification.

8.0 MARKING:

8.1 The rods shall meet the requirements of clause 4.6 of SFA-5.02.

9.0 PACKAGING:

9.1 Rods of the same size and batch/lot shall be packed in water resistant plastic tube shaped cartons. Each tube carton shall weigh not more than 10 Kg. The cartons shall be provided with watertight lid to ensure waterproof during transit & storage. Tube Cartons shall be packed in waterproof boxes with crates so as to ensure no damage during shipment and normal storage conditions. Weight of each crate shall not exceed 1000kg.

9.2 The cartons shall have product information as per clause 4.6 of SFA-5.02

10.0 TESTING & CERTIFICATION:

10.1 Batch/Lot classification shall be Class S1 as per SFA-5.01 Filler metal procurement guidelines of ASME Sec.II.C. (Latest Edition and Addenda)

10.2 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)

10.3 Three copies of original certified material test report in English signed by the manufacturer giving details of tests done in compliance with this WCPI and ASME Sec.II.C.SFA-5.28, ER90S-B91 shall be sent.

10.4 "A copy of valid IBR Approval Certificate for the brand being supplied shall be sent along with supply. It is mandatory that, Manufacturer should possess a valid IBR certificate (for the brand being supplied) during the manufacturing period". (OR) "Original certified material test report in English countersigned by Inspecting Authority (Latest) approved by IBR for country of origin giving details of tests done for compliance to this Purchase instruction and ASME Sec.II.C.SFA-5.28, ER90S-B91, shall be sent along with every consignment".

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-5.28 ER90S-B91.

Handwritten signature/initials

Handwritten signature: RANJAN

| Sl. No. | Pre –Qualification Criteria - ER90S-B91 | Bidder remark |
|---------|---|---------------|
| 1 | Bidder shall be a manufacturer of the Quoted item or an authorized dealer of the same. If the offer is quoted by agent, letter of authorization or agreement duly signed by the manufacturer is required to consider the offer. | |
| 2 | <p>Bidder (Principle Supplier) shall have successful experience for supplying of ER90S-B91 / ER90S-B9 to any govt. Organizations/ PSUs/ Public ltd./ Company/Reputed Industries etc.</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” from Principle Supplier regarding document Sl . 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 | Quoted Welding Consumables brand name. | |
| 5 | Quoted Product Catalogue | |
| 6 | Mill address (manufacturing address). | |
| 7 | Mill capacity for Quoted Item. | |
| 8 | Manufacturer shall submit manufacturing process flow chart (Raw material to finished product) along with offer for Quoted Item. | |
| 9 | Manufacturer (Principle Supplier) shall submit a valid ISO 9001 certificate or Quality management system certificate or Written down procedure. | |

| Sl. No. | Pre –Qualification Criteria - ER90S-B91 | Bidder Remark. |
|---------|--|----------------|
| 10 | Shall confirm to Technical Specifications as per as per WCPI - 114/10. | |
| 11 | <p>Vendor should give confirmation to BHEL’s Technical Specification (WCPI - 114/10). 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> | |
| 12 | 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-5.28 ER90S-B91. | |
| 13 | Original certified material test report in English signed by the manufacturer giving details of tests done in compliance with this WCPI and ASME Sec.II.C.SFA-5.28, ER90S-B91 shall be sent along with supply. | |
| 14 | <p>offered ER90S-B91 ROD Diameter</p> <p>offered ER90S-B91 ROD Length</p> | |
| 15 | <p>“A copy of valid IBR Approval Certificate (for the brand being supplied) shall be sent 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>(OR)</p> <p>“Original certified material test report in English countersigned by Inspecting Authority (Latest) approved by IBR for country of origin giving details of tests done for compliance to this Purchase instruction and ASME Sec.II.C.SFA-5.28, ER90S-B91, shall be sent along with every consignment”.</p> | |