



WELDING CONSUMABLE PURCHASE INSTRUCTION FOR
ASME.SEC IIC, SFA-5.23, EA-4 SAW WIRE

1.0 General:

- 1.1 The wire shall comply with requirements specified in the latest edition and addenda (applicable on the date of issue of purchase order) of ASME Sec IIC, SFA-5.23, EA-4. All tests, acceptance criteria shall be in accordance with this. Additional requirements specified in this document and purchase order shall also be complied.
- 1.2 The wires shall be supplied in size and quantity as specified in the purchase order.
- 1.3 The wires are intended for use as SAW wire for multi pass welding of radiographic quality butt joints in high pressure boiler pipes & headers.

2.0 Chemical Composition:

The chemical composition of the wire shall conform to ASME SEC IIC SFA-5.23, EA-4.

3.0 Size:

The wire shall be supplied in diameter 2.0mm, 2.4mm, 3.2mm, 4.0mm and 4.8 mm as specified in the purchase order. The tolerance on diameter shall be as per ASME Sec IIC, SFA-5.02. The net Weight of the coil shall be 25/30Kg.

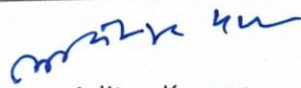
4.0 Form:

The Wire shall be appropriately layer wound in coils with hardboard liner support of dimensions and weight as given below.

- a) Inner Diameter of Liner : 305 + 10/-0 mm
b) Width of Coil (maximum) : 100 mm
c) Net Weight of Coil : 25 Kg /30 Kg.

The wire in coil form along with liner shall be so designed & constructed to prevent distortion of the wire coil / unwinding of the wire/ contamination of the wire during transportation, storage and use under normal conditions.

Prepared:


Aditya Kumar
Senior Engineer/WTC

Reviewed and approved:


R Arivazhagan
SM/WTC



5.0 Finish and Uniformity:

The wires shall meet the requirements of clause 4.2 of SFA-5.02 and The wire shall be copper coated by an appropriate process that results in uniform coating thickness without any flaking providing a bright and glossy finish that ensures prevention from rusting in long duration storage.

6.0 Winding ,Temper ,Cast & Helix :

The Wire shall be layer wound in coils so that kinks, waves, sharp bends, overlapping or wedging are not encountered leaving it free to unwind without any restriction. The outside end of the wire (The end with which welding is to begin) shall be identified and securely fixed so that it can be readily located and admitted into the wire feed system. This end shall be fastened to avoid unwinding. The inner end of the wire shall be fixed to the hardboard liner so as to ensure unrestricted layer by layer unwinding of the wire in the wire feed sprocket.

The temper, cast and helix of wire on coils shall ensure unrestricted layer by layer unwinding and easy straightening in the wire feed system and shall render itself to accurate tracking to the Weld groove as it issues out of the current contact tube.

7.0 Identification:

Adhesive labels containing following product information shall be securely affixed in a prominent location on the hardboard liner of the coil. The Label shall be so affixed that it stays in place during usage of the coil under normal conditions.

- a) Specification & Classification Designation.
- b) Brand Name and Supplier Name.
- c) Batch/Lot Number.
- d) Size & Net Weight.

8.0 Marking:

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

9.0 Packaging:

9.1 The wire spool shall be completely devoid of moisture or any other foreign material which is adequately sealed in suitable cartons to ensure no deterioration in the wire quality during transportation or long duration storage and shall meet 4.3.1 of SFA 5.02.

Prepared:

Aditya Kumar
Senior Engineer/WTC

Reviewed and approved:

R Arivazhagan
SM/WTC



9.2 The 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.

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

10.0 Testing and Certification:

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

10.2 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).

10.3 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 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-5.23 EA-4.

10.5 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-5.23, EA-4 shall be sent.


10.6 "A copy of valid IBR Approval Certificate for the brand being supplied. The brand of EA-4 SAW Wire to be supplied shall be approved by the concerned IBR Authorities of the state. Every batch of electrodes supplied shall be manufactured during the period when IBR approval for the brand was valid". (OR)

"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 (WCPI-018/Revision No.:01) and ASME Sec.II.C, SFA-5.23, EA-4 shall be sent. Every batch of wire shall be inspected and test certificates shall be countersigned by Inspecting Authority approved by IBR for the country of origin (latest).

Prepared:


Aditya Kumar
Senior Engineer/WTC

Reviewed and approved:


R Arivazhagan
SM/WTC

Sl. No.	Pre –Qualification Criteria	Bidder remark
1	<p>Bidder shall be a manufacturer of the Quoted Submerged Arc Welding Wire / 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 SAW Consumables 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 “<u>successfully supplied and accepted by customer</u>” on Principle Supplier letter head regarding document SI . 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 • Rejected Quantity and Rejection details. 	
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 SAW Wire (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 SAW Wire.</p>	
8	<p>Manufacturer (Principle Supplier) shall submit a valid ISO 9001 certificate or Quality management system certificate or Written down procedure.</p>	

Sl. No.	Pre –Qualification Criteria	Bidder Remark.
9	Shall confirm to Technical Specifications as per WCPI-018/Revision No.:01	
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-018/Revision No.:01 and ASME Sec.II.C.SFA-5.23 EA-4 shall be sent.	
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-5.23 EA-4.	
13	<p>“A copy of valid IBR Approval Certificate for the brand being supplied. The brand of EA-4 SAW Wire to be supplied shall be approved by the concerned IBR Authorities of the state. Every batch of electrodes supplied shall be manufactured during the period when IBR approval for the brand was valid”.</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 (WCPI-018/Revision No.:01) and ASME Sec.II.C, SFA-5.23, EA-4 shall be sent”.</p>	