

### Technical Specifications

SL. No	Description and Technical Specification of the item	QTY	UNIT	Delivery
1	E 551T1-B2C FCAW WIREDIA1.60MM DRUM PACK ASME SEC.II.C SFA.5.29M E551T-B2C FCAW WIRE TO WCPI-511/02. Diameter 1.60 mm x 150/200/250 kg DRUM pack.	76,250.00	KG	Staggered delivery

Delivery:

1- Delivery within 90 Days – 40,000 Kg

2- Delivery within 210 Days - 36,250 Kg



BHARATH HEAVY ELECTRICALS LIMITED  
TIRUCHIRAPALLI-620 014  
WELDING TECHNOLOGY CENTRE

Doc. Number: WCPI – 511

Revision No.: 02

Date: 01.10.2013

**WELDING CONSUMABLE PURCHASE INSTRUCTION FOR  
FCAW WIRE AS PER ASME SEC II C SFA-5.29M E551T1B2C BULK PACK**

**1.0 GENERAL:**

1.1 The wire shall comply with the requirements specified in the latest edition and addenda (applicable on the date of issue of purchase order) of ASME Sec.II.C.SFA-5.29M, E551T1B2C. All tests, acceptance criteria shall be in accordance with this. Additional requirements specified in this document shall also be complied.

1.2 The wires shall be supplied in sizes and quantities as specified in the purchase order.

1.3 The wires are intended for use as a welding electrode for tube to fin fillet welding in a multi torch welding machine with a welding speed of 1000-1500 mm per minute. The welded panel output from the machine is used as water walls and steam cooled walls in high pressure boilers.

**2.0 CHEMICAL COMPOSITION:**

The chemical composition of the weld metal deposited using wire with CO<sub>2</sub> shielding shall conform to ASME SEC.II.C SFA-5.29M, E551T1B2C.

**3.0 MECHANICAL PROPERTIES:**

Mechanical properties of the wire shall conform to ASME SEC.II.C SFA-5.29M, E551T1B2C with 100% CO<sub>2</sub> shielding.

**4.0 RADIOGRAPHIC SOUNDNESS & USABILITY:**

4.1 The wire when used as an electrode in FCAW with 100% CO<sub>2</sub> shall deposit a weld metal that flows freely, produce notch free weld interface and posses good slag detachability. The wire shall produce a soft and stable arc, very low spatter and less fumes.

4.2 The resultant weld metal shall be smooth, uniform, finely rippled with no visible evidence of cracks, porosity or other defects and shall meet the radiographic soundness requirements as per ASME SECIIC SFA-5.29M, E551T1B2C.

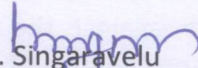
**5.0 SIZE:**

The wire shall be supplied in diameter 1.6mm as specified in the purchase order. The tolerance on diameter shall be as per SFA-5.02.

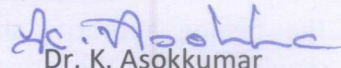
**6.0 FORM & WEIGHT:**

The wire shall be supplied in drum pack of 150 to 300 kg net weight. Drum outside diameter is 500mm. Packs shall be designed and constructed to prevent against damage or distortion to itself and to the wire due to normal handling or use.

Prepared:

  
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DGM / WTC

Reviewed & Approved:

  
Dr. K. Asokkumar  
AGM/WTC



**7.0 FORM & WEIGHT:**

Packs shall be designed and constructed to prevent against damage or distortion to itself and to the wire due to normal handling or use. Spools shall meet the clause 4.3.4 of SFA-5.02.

**8.0 FINISH & UNIFORMITY:**

The wire shall meet the requirements of clause 4.2 of SFA-5.02. The wire as shipped shall be essentially free from lubricants, residue, or rust that would cause buildup and stoppage in welding nozzles.

**9.0 WINDING REQUIREMENTS:**

The wire shall meet the requirements of clause 4.4 of SFA-5.02.

**10.0 IDENTIFICATION & MARKING:**

The wire shall meet the requirements of clause 4.5.2 & 4.5.6 of SFA-5.02 for identification and clause 4.6 of SFA-5.02 for marking.

**11.0 PACKAGING:**

11.1 The wire should be completely devoid of moisture or any other foreign material with adequate sealing to ensure no deterioration in the wire quality during transportation by sea or long duration storage. Anti-rust paper and or compounds shall be suitably placed to avoid rusting of wires.

11.2 Suitable access, such as hooks, shall be provided on the outside of the drums for easy and proper handling of the same.

11.3 The cartons shall be packed in waterproof boxes with crates so as to protect them from damage during shipment and storage under normal conditions. Weight of each crate shall not exceed 1200kg. The cartons shall have product information as per clause 4.6 of SFA-5.02

**12.0 TESTING & CERTIFICATION:**

12.1 Each consignment of wires supplied shall be from one batch only.

12.2 Batch /lot classification shall be Class T1 as per SFA-5.01 filler metal procurement guidelines of ASME Sec.II.C. (Latest edition and addenda).

12.3 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).

12.4 Three copies of original test certificates in English countersigned by inspecting authority (latest approved by IBR of the country of origin giving details of the tests done in compliance with this purchase instruction and ASME Sec.II.C, SFA-5.29M, E551T1B2C shall be sent. In addition, test certificate shall contain purchase order number, quantity and customer name.

12.5 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-5.29M, E551T1B2C.

Sl. No.	Pre –Qualification Criteria PR 0135281967	Bidder remark
1	If Bidder is a manufacturer, Confirm “Yes or, No” in bidder remark.	
2	Bidder shall be a manufacturer of the Quoted items 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. Tender Enquiry details must available on Letter of authorization or agreement to consider the offer.	
3	Quoted Welding Consumables Brand Name/Product Name	
4	Quoted Product Catalogue	
5	Manufacturing Plant Address / Mill Address	
6	Manufacturer / Bidder shall submit manufacturing process flow chart (Raw material to finished product) along with offer for Quoted Item.	
7	Bidder/Manufacturer shall submit a valid ISO 9001 certificate or Quality management system certificate or Written down procedure for ISO 9001 or A valid ISO 45001 certificate or Written down procedure for Quality inspection.	
8	Manufacturing Plant/Mill capacity for quoted material.	

Seal and Sign of Authorized Person

Sl. No.	Pre –Qualification Criteria PR 0135281967	Bidder remark
9	<p>Bidder 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>	
10	Shall confirm to Technical Specifications as per as per WCPI-511/02.	
11	Diameter details and Each Drum Pack Weight details	
12	IBR certificate status to be provide for Quoted item.	
13	Seal and Sign on WCPI-511/02 for Technical Specification Confirmations.	

Seal and Sign of Authorized Person

**Annexure – A- Additional Terms and Conditions for GeM Enquiry**

The terms and condition mentioned in this document are applicable in addition to the GeM General Terms and Conditions. Bidders shall furnish pointwise confirmation/details.

<i>To be filled by bidder</i>		
<b>Description of the Equipment:</b>		
<b>GeM Tender No. &amp; Date</b>		
<b>Name of the firm (Bidder)</b>		:
<b>Address</b>		:
<b>Contact person 1</b>		<b>Contact person 2</b>
<b>Name:</b>		<b>Name:</b>
<b>Designation:</b>		<b>Designation:</b>
<b>Office Phone:</b>		<b>Office Phone:</b>
<b>Mobile:</b>		<b>Mobile:</b>
<b>e-mail:</b>		<b>e-mail:</b>
<b>Offer/Quotation reference with date</b>		:
Sl	Terms and conditions	Vendor's confirmation
1.	Inspection by BHEL/as per Technical specification(if any).	
2.	<p><b>Payment terms:</b></p> <ol style="list-style-type: none"> <li>1. Payment terms for Non MSME Suppliers: Within 90 days after CRAC</li> <li>2. Payment terms for Micro &amp; Small Enterprises (MSEs): Within 45 days after CRAC. The supplier should upload UDYAM Registration Certificate in proof of MSE.</li> <li>3. Payment terms for Medium Enterprises: Within 60 days after CRAC. The supplier should upload UDYAM Registration Certificate in proof of Medium Enterprises.</li> </ol> <p><b>Note:</b> Deviation in above payment terms is not acceptable. In case of Auto PRC/CRAC, Payment due date shall be calculated from CRAC date or material acceptance date by BHEL whichever is later.</p>	
3.	Response to Tenders for Indigenous supplier will be entertained only if the vendor has a valid GST registration number which should clearly mentioned in the offer. Indicate the GST registration number. If any specific exemption is available, a declaration with due supporting documents need to be furnished for considering the offer.	GST Registration No. _____
4.	<b>Performance Bank Guarantee:</b> Not Applicable	
5.	Kindly Indicate the HSN Code for all items	HSN CODE : _____
6.	Rate quoted in GeM portal should be on FOR destination basis inclusive of all taxes, P&F, freight etc. Transit Insurance is under Supplier scope.  Please indicate how much GST percentage is included in quoted price.	GST in %: _____

Vendor's Seal & Signature

## / On Bidder's office letter pad /

Self-Declaration

Enquiry No.	
Enquiry Date	

In line with Government public procurement order Number P-45021/2/2017-B.E-II dated 15.06.2017, and further modified order dt. 28.05.2018, 29.05.2019 & order 04.06.2020 issued by DPIIT

I / We hereby declare that I / We are a "Local Supplier" meeting the requirement of minimum local content (..... %) defined in the above government notification for the goods against above mentioned enquiry Number.

Details of location at which local value addition will be made is as follows:

Door No.	
Street / Address 1	
Street / Address 2	
District	
State	
Country	
PIN Code	

We also understand that the false declarations will be in breach of the code of Integrity under rule 175(1)(i)(h) of the General financial rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

For Company Name:

Seal:

Signature:

Date:

Place:

**Note:**

"Local Content" means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent. "Local Supplier" means a supplier or service provider whose product or service offered for procurement meets the minimum local content.

# The above declaration shall be submitted mandatorily along with the offer in company letter head with seal & signature.

(Please fill all the yellow color field)