

Government of India  
Bhabha Atomic Research Centre  
Metallic Fuels Division

Ref: MFD/NFG/22/US/~~OPA~~ P-43361

Date: 05-05-2022

To,

M/s

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Dear Sir,

We request you to submit your quotation for "Fabrication and supply of synthetic rubber produced by polymerization of chloroprene in customized size and shape as flexible pressure boundary for specially designed Stainless steel enclosures as per the specification given in attached annexure."

Yours faithfully,



(Sivakumar U)  
Scientific Officer (D)  
(On behalf of the President of India)

Encl.: Annexure-I

## Annexure-I

### SCOPE:

**“Fabrication and supply of synthetic rubber produced by polymerization of chloroprene in customized size and shape as flexible pressure boundary for specially designed Stainless steel enclosures as per the specification given in attached annexure.**

1. Customized Polychloroprene synthetic rubber flexible pressure boundary for stainless steel Enclosure (functional under static & dynamic pressure condition) with seamless integration for 165 mm opening: 150 No
2. Customized Polychloroprene synthetic rubber flexible pressure boundary for stainless steel Enclosure (functional under static & dynamic pressure condition) with seamless integration for 230 mm opening: 300 No

### **Specifications:**

#### **General Description:**

Material: Polychloroprene

Thickness:  $8/10 \pm 1/10$  mm ( $30 \pm 4$  mil)

Physical form: Flexible pressure boundary suitable for seamless integration with enclosure opening and adequate flexibility for human functioning

Length:  $800 \text{ mm} \pm 20 \text{ mm}$

Colour: Black

**Cuff edge must be finished in the form of “O” ring of uniform thickness of around 6 mm and must be seamless i.e. Bead:  $\phi 6 \text{ mm} \pm 1 \text{ mm}$**

#### **Properties**

- Polychloroprene content: 85 %
- Tensile strength: Between  $180 \text{ Kg/cm}^2$  and  $220 \text{ Kg/cm}^2$
- Elongation at break:  $>500 \%$
- Permanent set: 20 % (elongation at 200 % during 10 minutes)
- Specific gravity:  $1.36 \text{ g/cm}^3$
- Contact test to 3 M nitric acid liquid: Tensile strength  $> 131 \text{ Kg/cm}^2$  after immersion in  $3\text{M HNO}_3$  for 24 hours.
- The Polychloroprene synthetic rubber must have good resistance to tearing, heating, oxidation, alkalis, acids, aliphatic solvents, oil and atmospheric ozone.

- Should have no permeability to gases.

- **All the material must undergo visual and static and dynamic pressure test in order to detect all pinholes.**

- The Polychloroprene synthetic rubber should have the following Mechanical Properties:  
The results shall be informed to the user as and when demanded

Type	Norm	Unit	Value
100% modulus	ISO 37	MPa	< 2.8
300% modulus	ISO 37	MPa	< 5
500% modulus	ISO 37	MPa	< 10
Tensile Strength	ISO 37	MPa	>15
Elongation at break	ISO 37	%	>500
Perforation resistance	EN 388	N	>20
Tear Strength(delft)	ISO 34-2	N	>15
Tear strength (non cutted angular tear)	ISO 34-1	KN/M	>20

- Resistance against Thermal accelerated ageing:

- Tensile strength: < 25%/original value
- Elongation at break: < 30%/original value

- Resistance against various Chemical Agents :

**General requirements:**

- The terms of guarantee/ warranty should clearly be stated.
- Representative of the supplier shall be present during the actual delivery of material at RLG zonal Stores, at BARC Mumbai.
- **The guarantee of the item should be for a minimum period of one year.**

### Place of Delivery:

The inspected and accepted Assemblies shall be delivered to:

RLG Stores Officer  
Radiological Zonal Stores.  
Bhabha Atomic Research Centre  
Mumbai- 400 085

You shall send your offer in a sealed envelope (**strictly by registered post/Speed post only**) indicating delivery period, price inclusive of taxes and other relevant information, to:

U. Sivakumar  
Metallic Fuels Division  
Bhabha Atomic Research Centre  
Trombay, Mumbai 400 085

### **REQUIREMENT FOR Earnest Money Deposit (EMD):**

**The supplier is required to submit Earnest Money Deposit (EMD) of Rs.1,00,000/- in the form of DD in the name of Accounts Officer, CC, BARC.**

**The offers/quotations without the EMD will be suspended from bidding till the validity of the quotation.**

**"Post supply inspection in respect of supplies made is not permitted. Any offer containing the condition of post supply inspection will be out-rightly rejected. It is therefore, mandatory for the bidders, while quoting, to indicate in clear terms the requirement of post supply inspection by any outside agency."**

- Quotation shall reach us by speed post/register post only, on or before **18-05-2022** before **1100 hrs.**
- Please send "REGRET" if not quoting.
- On top left corner of the sealed envelope please indicate **"Fabrication and supply of synthetic rubber produced by polymerization of chloroprene in customized size and shape as flexible pressure boundary for specially designed Stainless steel enclosures as per the specification given in attached annexure."** All applicable taxes should be clearly mentioned.
- Overwriting, scratching etc. must be avoided in the quotation. Rewriting the whole figure shall carry out any alteration in the figure. The authorized person from the firm shall countersign such figure.
- The delivery period mentioned in the quotation shall be strictly adhered to. If the contractor fails to supply and secure extension of delivery date before effecting delivery of the supply against the contract, acceptance of such item by the purchaser will in no way prejudice the right of the purchaser to levy liquidated damage nor will it be entitled to the contractor for payment of statutory levies that comes into force after the expiry of the delivery date.
- Guarantee / Warranty of the material supplied for one year.



- Early delivery schedule will be given a consideration.
- You may contact Shri Sivakumar U (25590672) for any clarification.

#### **PAYMENT TERMS:**

Full payment will be made only after the satisfactory completion of Work order and delivery of “Fabrication and supply of synthetic rubber produced by polymerization of chloroprene in customized size and shape as flexible pressure boundary for specially designed Stainless steel enclosures as per the specification given in attached annexure”. Since the goods are to be supplied against the work order meant for research purpose of a research organization under DAE, the necessary GST will be exempted to the supplier. Please note that income tax @ 2% & 2% GST TDS will be deducted from your bill. *No part payment or advance payment will be made.* For this mode of payment, you are required to draw your invoice in the name of Director, Nuclear Fuels Group, Bhabha Atomic Research Centre, Mumbai 400085, in **triplicate** along with Advance Stamp receipt to be submitted along with,

For this mode of payment, you are required to draw your invoice in the name of Head, Metallic Fuels Division, Bhabha Atomic Research Centre, Mumbai 400085, in **triplicate** along with following documents:-

- Advance Stamp Receipt
- A copy of cancelled cheque
- Company’s GSTIN No. & PAN No. should be furnished along with the bill.
- Company’s copy of Sales Tax /Service Tax Registration Certificate has also to be furnished along with the bill.
- ITR Undertaking with acknowledgement for last two years failing which higher rate of TDS as per section 206AB & 206CCA of income tax act, 1961 will be applied.
- Option form for payment through ECS/RTGS with pre-stamped receipt.
- Guarantee / Warranty of the material supplied should be for one year.
- GST Undertaking as per the proforma given by the I/O.

Note: The Tax Invoice should specifically indicate the following:

- GSTIN
- PAN
- Location of supply
- Tax Component to be separately indicated in the invoice
- Undertaking that the GST has been promptly deposited with the authorities

Please note that, income tax @ 2% and GST TDS@2%, will be deducted from your bill. No part payment or advance payment will be made.

#### **DELAY CLAUSE:**

Any delay which is attributable to the contractor is liable for penalty @0.5% per week (**max. 10%**) to be imposed on the contractor.

#### **CONFIDENTIALITY:**

No, party shall disclose any information to any third party, concerning the matters under this contract generally. In particular, any information identified as "Proprietary" in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party. This clause shall apply to the sub-contractors, consultants, advisers or the employees engaged by a party with equal force. "Restricted information" categories under section 18 of the Atomic Energy Act, 1962 and "official Secrets" under section 5 of the official secrets act, 1923:- Any contravention of the above-mentioned provisions by any contractor, sub-contractor, consultant, adviser or the employees of a contractor will invite penal consequences under the aforesaid legislation. Prohibition against use of BARC's name without permission for publicity purposes:- The contractor or sub-contractor, consultant, adviser or the employees engaged by the contractor shall not use BARC's name for any publicity purpose through any public medial like press, radio, T.V. or Internet without the prior written approval of BARC.



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