

भारत सरकार
अंतरिक्ष विभाग
सतीश धवन अंतरिक्ष केंद्र शार
श्रीहरिकोटा रेंज डा.घ. 524 124
श्री पोट्टि श्रीरामुलु नेल्लूर जिला, आं.प्र., भारत
दूरभाष : +91-8623 245060 (6 जं)
फैक्स : +91-8623 222099



Government of India
Department of Space
Satish Dhawan Space Centre SHAR
Shriharikota Range P.O. 524 124
SPSR Nellore Dist., AP., India
Telephone : +91-8623 245060 (6 Lines)
Fax : +91-8623 222099

निविदा सूचना सं. TENDER NOTICE NO. SDSC SHAR/Sr.HPS/PT/RO-LSSF/13/2025-2026

भारत के राष्ट्रपति की ओर से वरि. प्रधान क्रय एवं भंडार, सतीश धवन अंतरिक्ष केंद्र श्रीहरिकोटा निम्नलिखित वस्तुओं के लिए ऑनलाइन निविदाएं आमंत्रित करते हैं:- On behalf of President of India, Sr. Head, Purchase and Stores, SDSC SHAR, SRIHARIKOTA invites on line quotations for the following.

क्र.सं. SI No	संदर्भ सं. Ref. No.	विवरण Description	मात्रा Qty.
01.	SDSC SHAR /LSSF PURCHASE /LSSF/2025000679 [Public Tender – Two Part]	Supply of Insulation Material for Tanks and Pipe lines	04 Line Items

निविदा दस्तावेजों को डाउनलोड करने की अंतिम तिथि Last Date for downloading of tender documents : 10.07.2025 at 14:00 hrs.
ऑनलाइन निविदा जमा करने की अंतिम तिथि Due Date for submission of bids online : 10.07.2025 at 14:00 hrs.
निविदाएं खोलने की नियत तिथि Due Date for opening of tenders : 10.07.2025 at 14:05 hrs.

निविदाकार के लिए निर्देश Instructions to Tenderers:

निविदाएं ईजीपीएस के माध्यम से ही भेजी जाएं तथा कोई निविदा शुल्क लागू नहीं होगा।
Bids shall be submitted on line through EGPS only and No tender fee shall be applicable.

- कार्य के सम्पूर्ण विवरण/जानकारी तथा नियम व शर्तों इत्यादि के लिए संलग्न अनुलग्नक को देखें। / For full details/scope of work and terms and conditions etc., please see the enclosed annexures.
- इच्छुक निविदाकार इसरो की ई-खरीद वेबसाइट इसरो न्यू ई-प्रोक्यूरमेंट www.eproc.isro.gov.in से ई-निविदा डाउनलोड और अपनी निविदा ई-खरीद पोर्टल पर ऑनलाइन जमा कर सकते हैं। डाक / वाहक / स्वयं द्वारा प्राप्त निविदाओं पर विचार नहीं किया जाएगा। / Interested tenderers can download the e-tender from ISRO e-procurement website www.eproc.isro.gov.in and submit the offer on line in the e-procurement portal. Offers sent physically by post/courier/in person will not be considered.
- निविदा दस्तावेज इसरो की वेबसाइट www.isro.gov.in इसरो न्यू ई-प्रोक्यूरमेंट वेबसाइट www.eproc.isro.gov.in तथा सतीश धवन अंतरिक्ष केंद्र शार की वेबसाइट www.shar.gov.in पर भी उपलब्ध हैं। इन्हें केवल ई-खरीद पोर्टल से डाउनलोड और निविदा ऑनलाइन जमा कर सकते हैं। / Tender documents are also available on ISRO website www.isro.gov.in, ISRO New e-procurement website www.eproc.isro.gov.in and SDSC SHAR, Sriharikota website www.shar.gov.in. The same can be down loaded and offer submitted on line in the new e-procurement portal only.
- निर्धारित तिथि/समय के पश्चात प्राप्त बोलियों पर विचार नहीं किया जाएगा। / Quotations received after the due date/time will not be considered.
- वरि. प्रधान क्रय एवं भंडार, सतीश धवन अंतरिक्ष केंद्र श्रीहरिकोटा के पास किसी भी या सभी निविदाओं को स्वीकार / अस्वीकार करने का अधिकार है। / Sr. Head, Purchase and Stores, SDSC-SHAR, Sriharikota reserves the right to accept or reject any/or all the quotations.
- GeM GARPTS Report ID: GEM/GARPTS /16062025/QABPI27PGM10

दिनांक DT: 17.06.2025

वरि. प्रधान क्रय एवं भंडार
Sr. HEAD PURCHASE AND STORES

भारतीय अंतरिक्ष अनुसंधान संगठन



Indian Space Research Organisation

Specification for supply of Insulation Material for Tanks & Pipe lines

1. Scope of supply

The scope of supply includes manufacturing and supply of phenolic foam thermal insulation material of required thickness for tanks and pipe lines as per the enclosed specifications.

2. General Conditions:

- 2.1 Suppliers shall submit the bids in **TWO-PART** bid basis. Part-I shall be techno-commercial bid and Part-II shall be price bid.
 - 2.2 Bid shall remain valid for acceptance for a minimum period of **90 days** from the due date of submission of the Bid. The Bidder shall not be entitled during the said period to revoke or revise his Bid or to vary the Bid except and to the extent required by SDSC SHAR in writing. Bid shall be revalidated for extended period as required by SDSC SHAR in writing. In such cases, unless otherwise specified, it is understood that validity is sought and provided without varying either the quoted price or any other terms & conditions of Bid finalized till that time.
 - 2.3 All direct and indirect costs associated with the preparation and submission of bid shall be to Bidder's account and SDSC SHAR will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bid process
 - 2.4 The bidder shall necessarily be a manufacturer of phenolic foam thermal insulation material. Traders/Dealers/Agents need not quote.
3. **Documents Comprising the Bid:** Bids shall be submitted in the following order.

Part-1: Techno- Commercial Bid

Techno commercial bid shall be filled in the techno-commercial bid format. Schedule of prices shall **not be filled** in this format. Deviations in terms and conditions, assumptions etc. shall be stipulated in column specified in the portal. **Technical bid received with prices will be invalid and shall not be considered for further evaluation.**

Part-2: Price Bid

- Prices shall be filled in the price bid format of the e-portal only. The price bids will be opened only after evaluation and acceptance of the technical bid of the respective tenderer.
- Purchase order will be awarded item wise lowest offer only.
- Vendor evaluation by a technical team of SDSC SHAR has to be accepted by the party. The vendor evaluation will be done after the opening of technical bid and before the opening of price bid if required.
- The bidder shall carryout the following tests on phenolic foam sample in the presence of SDSC SHAR technical team during the vendor evaluation. **If required only. No extra charges shall be paid for these tests and to be done free of cost.**
 - ✓ Compression strength
 - ✓ Density
 - ✓ Thermal Conductivity
 - ✓ Closed cell content
 - ✓ Ignitibility
 - ✓ Dimensional Stability
 - ✓ Critical Oxygen Index
- SDSC SHAR reserves the right to reject any or all the Bids without assigning any reasons thereof.

4. BID EVALUATION

- 4.1 During evaluation, SDSC SHAR may request bidder for any clarification on the bid or additional documents.
- 4.2 Bidder must provide the point by point compliance to the technical specifications along with deviations if any. The tender will be rejected, if the deviations are not acceptable to the department.
- 4.3 Bids from the manufacturers of phenolic foam thermal insulation material will only be considered and the bidder shall confirm the same. Offers from Traders/Dealers/Agents will not be acceptable.
- 4.4 The bidder shall have necessarily executed atleast one order of more than ₹25 lakhs (or) two orders of more than ₹15 lakhs (or) three orders of more than ₹10 lakhs confirming the manufacturing and supply of phenolic foam thermal insulation material during the past five financial years. Copies of purchase orders to be submitted along with the quotation, failing which the offer will not be considered.
- 4.5 The bidder shall submit the following along with the tender
 - a. Company's profile comprising of manpower and annual turnover for the past 3 years.
 - b. Production capacity per annum.
 - c. Orders executed for the past 5 financial years for the supply of phenolic foam thermal insulation material.
 - d. Self-declaration for not having any criminal case pending and should not have been blacklisted by Central / State Government organization / department in India at the time of submission of the Bid.
 - e. Bidder shall have GST & PAN registration certificates and certificate shall be submitted for evidence
5. **Payment Terms:** Our general payment terms are within 30 days after receipt and acceptance of items at purchaser's (SDSC-SHAR, Sriharikota) site.
6. **Delivery Schedule:** Delivery of items is the essence of the contract. All the items shall be delivered to SDSC SHAR within 8 months from the date of release of PO.
7. **Documentation:** At the time of dispatch 2 sets of documents comprising all the test reports including copies of type test certificates shall be submitted.

TECHNICAL SPECIFICATIONS

1. Scope of the supply:

Manufacturing, testing & supply of insulation material for tank & pipe lines as per below table-1.

Table-1			
Sl. No	Item description/sizes	Thickness (mm)	Qty
1	Supply of Insulation material for 60Cu.m capacity Tank, Cylindrical Portion (curved segments) slabs – 300 m ² and Dished end (Petals) slabs - 100 m ²	50	400 m ²
2	Supply of insulation Material for pipe size 80NB	40	650 m
3	Supply of insulation Material for pipe size 100NB	40	650 m
4	Supply of insulation Material for pipe size 125NB	40	350 m

2. Specifications:

2.1. Material: Fire resistance Phenolic Foam

The basic insulation material shall have the following features:

- Fire Resistance
- Non-flammable retains its shape and does not soften, melt or drip, when subject to fire.
- No deterioration with time.
- Good adhesion to facings
- No emission of toxic fumes in the event of fire. Toxicity index shall be < 1 (NCD1409)
- Negligible smoke generation. Smoke index < 5 as per NCD-1411
- Anti-static properties.

2.2. Properties of Insulation Material

2.2.1. Thermal Properties:

- Thermal Conductivity: ≤ 0.02 W/m-K as per BS-4370: Part-2
- Thermal Range = -196 °C to +130 °C

2.2.1. Mechanical Properties:

- Density 40-50 kg/m³ as per BS-3927 of 1986
- Compressive strength: Not less than 150 kPa as per BS-4370 Part-2
- Tensile Strength, cross breaking strength, dimensional stability and closed cell contents as per BS-4370

2.2.2. Moisture Properties:

- Water absorption = <4% by volume or as per ISO 2896
- Water Vapour transmission < 3per Inch as per BS4370: Part-2

2.2.3. Fire Performance

- Surface spread of flame BS-476 part 7, 1971 class-I
- Ignitability: BS 476 Part5:1979-Class P
- Critical Oxygen Index: $55 \pm 5\%$
- Obscuration: < 5%
- Building regulation (1976 Classifications) - Class 0
- Fire propagation in accordance with BS 476 part 6
- Pinking Behaviour as per BS-5946 – Non pinking

2.3. Surface details of Phenolic Foam slabs for tanks:

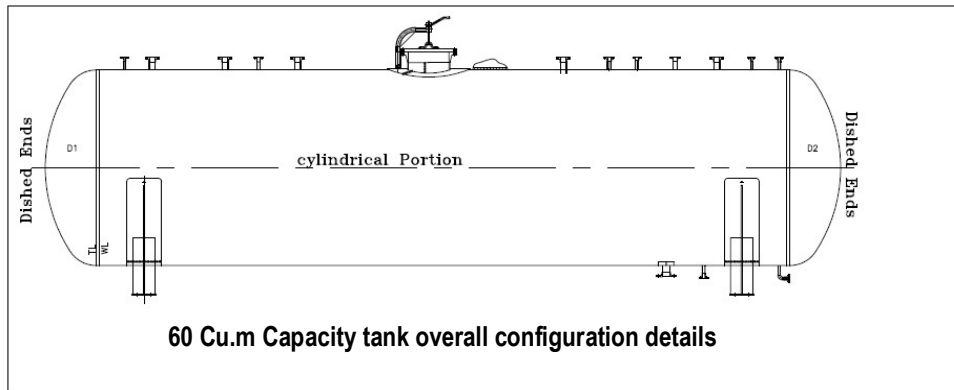
2.4. Outer Surface

- Aluminium foil is to be provided for exposed external surface Thickness of Aluminium foil should be ≤ 50 Micron (as per CT-5, Lantec specs.) Aluminium foil covered with 2" extra on all side.

2.5. Inner Surface:

- Glass cloth acing to be provided on the curvature side of the slab As Per BS 3396 part-I, Type E (approximate thickness: 0.3 to 0.43mm).

2.6. Details of 60m³ tank:



2.6.1. Overall details of Tank:

- Storage tank of SS Construction
- Horizontal, cylindrical with torispherical dished ends.

2.6.2. Cylindrical portion (Size of segments)

- This portion of tank shall be insulated using **curved segments.**
- The slabs need to match the tank curvature, the dimensions shall be as per drawing.
- The complete cylindrical surface area shall be covered by maximum number of segments 48 for each tank.

2.6.3. Torispherical dished ends:

- This portion of the tank shall be covered in the form of **petals.**
- The complete both dished end area shall be covered by maximum number of petals 32 for each tank.

2.7. Specification for Pipe Sections

2.7.1. Pipe insulation suitable for stainless steel pipes as per ANSI B36.19

2.7.2. Facing of pipe section: Aluminium foil, with 25 mm overlap along the length and circumference.

2.7.3. **The sections shall be supplied in 2 halves for each unit length of pipe. The length of each section shall be preferably 1m i.e., each meter pipe insulation comprises 2 halves of 1m each to suit for each meter of pipe (1 meter is considered as 1 running meter).**

Note: The Inner dimensions of Insulation Material should perfectly match with the outer dimensions of the specified pipe lines without any gap. This Insulation Material will be fixed over pipelines with GI strapping and provision to remove & inspect the pipelines periodically. Since no adhesive material will be used for fixing insulation material over pipe lines, gap between pipeline and insulation material should be avoided. The same should be confirmed while quoting offer.

2.8. Inspection

- 2.8.1. Supplier has to submit the manufacturing drawings of the insulation segments and quality assurance plan for testing of the material within one month from the date of release of Purchase Order.
- 2.8.2. Insulation material shall be Inspected and tested as per standard practice/QAP and witnessed by the purchaser's representative /CLIP Member at the supplier's premises.
- 2.8.3. Supplier has to inform the purchaser, the readiness of the materials for inspection well in advance for arranging the purchaser's representative for inspection at works. The items shall be dispatched only after inspection, completed by the purchaser's inspection engineers at works and after dispatch clearance given by the purchaser.
- 2.8.4. The supplier shall test the insulation material for the various properties like compressive strength, density, dimensional stability, closed cell content, fire resistance etc.,
- 2.8.5. Test certificates shall be furnished for properties like water absorption, thermal conductivity, toxicity index, oxygen index, smoke index, tensile strength, cross breaking strength, fire propagation, surface spread of flame and punking behaviour.

2.9. General Conditions.

- 2.9.1. The curved segments and petals shall fit for the tanks and pipes without gaps or clearances.
- 2.9.2. To avoid number of joints, tank insulation material shall have less number of petals for each 60m³ capacity storage tank, Cylindrical portion: 48 Nos, dished end: 32 Nos (2 dished ends).
- 2.9.3. Supplier shall confirm all the points of the indent specifications and general conditions in the offer and bring out the deviations if any. If no deviations are indicated in the offer it will deemed that all the tender specifications are accepted.
- 2.9.4. The materials shall be packed as per standard practice, to avoid damage during transportation and handling
- 2.9.5. The material shall be guaranteed for performance for a period of 12 months from the date of dispatch.
- 2.9.6. The purchaser reserves the right to procure/not procure the insulation material after receiving the quote from supplier.
- 2.9.7. Payment:100% will be made after receipt, inspection and acceptance of the material at SDSC SHAR, Sriharikota.
- 2.9.8. Successful bidder may visit the purchaser's site after release of the P.O. before initiation of manufacturing of the insulation slabs, if required.
- 2.9.9. Supplier shall fill the technical compliances format-I attached in e-procurement portal terms and conditions, without which the offer will not be considered.
- 2.9.10. Supplier shall confirm all the points of the indent specifications and general conditions in the offer and bring out the deviations if any. If no deviations are indicated in the offer it will deemed that all the tender specifications are accepted.
- 2.9.11. **Bidder has to agree for part quantity supply and the purchase order will be awarded item wise lowest offer only.**

Quality Assurance Plan (QAP)

Sl.No	Characteristics / type of check	Ref. Document.	Method of check	Quantum of check	
				Supplier's Q.C	Purchaser's rep.
1.	Material of construction	Purchase order specifications.	Verification of Material test certificates.	R 100%	R 100%
2	Dimensional and visual inspection	Purchase order specifications,QAP and Approved dwg.	Measurement/ visual	R 100%	W (RN)10 %
3.	Review of Test certificates.	Purchase order specifications.	Verification of Material test certificates.	R 100%	R 100%
4.	Sample Testing for confirming the properties of fire resistance, mechanical, thermal, moisture.	As per the code mentioned in this document.	Witness	R 100%	W (RN) 10 %
5	Final Documentation	As per P O/ Approved dwg.	Verification of Documents/ Certificates	H 100 %	R 100%

H – Hold, RN- Random, R – Review, W – Witness

Compliance for techno-commercial terms: Bidder has to fill / confirm the following format towards the compliance of the techno commercial terms.

Sl. No	Description	Compliance (Yes / No)
1.	All the Tender specifications are read, fully understood and all are acceptable.	
2.	submit the product catalogue/brochures of the company, experience in the field of Phenotherm insulation materials, 5years purchase orders executed turn over and available facilities/equipment details.	
3.	Acceptance of the Bidder's manufacturing and testing facilities for evaluation by the Purchaser's representative during the technical bid evaluation, if required.	
4.	Confirm the insulation material shall be of Phenotherm and meet all the insulation, mechanical, chemical, thermal, moisture and fire resistance properties mentioned in tender specifications.	
5.	Supplier has to submit the manufacturing drawings of the insulation slabs and quality assurance plan for testing of the material after releasing of the Purchase Order.	
6.	Supplier to note that it is the responsibility of the supplier to verify and confirm the tank cylindrical and dished end petal actual dimensions before commencement of the production. If required supplier can visit purchasers site after release of the P.O.	
7.	If the dimensions are not suitable to the tank cylindrical/dished ends curved petals and also if the material gives any trouble/defect, it is the responsibility of the supplier to replace the material with free of cost.	
8.	Bidders has to agree for sending the sample insulation material. If purchaser required	
9.	All the insulation material will be Inspected and tested as per standard practice and witnessed by the purchaser/CLIP Member at the supplier's premises.	
10.	Confirm the supplier has considered the cost towards the PO quantity of finished material, testing, Packing & forwarding, transportation charges and taxes, if any etc.,	
11.	The materials shall be packed as per standard practice, to avoid damage during transportation and handling.	
12.	The material shall be guaranteed for the requisite performance for a period of 12 months from the date of dispatch	
13.	Bidder has to agree for part quantity supply and the purchase order will be awarded item wise lowest offer only.	
14.	Deviations if any have to be clearly spelt out in the offer itself. If no deviations are mentioned in the offer it is assumed that all the indent/tender specifications are agreed	