

Govt. of Assam  
**OFFICE OF THE CHIEF ENGINEER**  
**WATER RESOURCES DEPARTMENT**  
**ASSAM WATER CENTRE**  
5<sup>th</sup> Floor, Basistha Chariali, Guwahati - 29

**Short Notice**

**Invitation for Expression of Interest (EOI)**

**Notice inviting Expression of Interest (EOI) for Empanelment of Manufacture/Brand/Make as recommended Brand/Make of Geo Textile Products of Water Resources Department, Govt. of Assam.**

Sealed offers are invited by the Chief, Engineer, Water Resources Department, Assam Water Centre, 5<sup>th</sup> Floor, Basistha Chariali, Guwahati -781029, for Empanelment of Manufacture/Brand/Make as recommended Brand/Make of Geo Textile Products of Water Resources Department, Assam, on or before 15-03-2022 up to 12:00 PM A pre-participation meeting prior to submission of EOI for the discussion/suggestions/queries on EOI will be held on 07-03-2022 at 1.00 PM in the Conference Hall, at the office of the Chief Engineer, Water Resources Department, Assam Water Centre, Basistha Chariali, Guwahati – 29. The Companies/Manufacturer willing to make the presentation of their product, can do so during the meeting. Rate Quotations are also invited from the Manufacturers against the Products as per the specifications.

The submission of an offer by a Manufacturer/Company will imply that it has read the detailed EOI and all other documents. The detailed EOI is available on Web site of Water Resources Department, <https://waterresources.assam.gov.in>. Any query in this regard may be made by sending mail to [eoicewrd@gmail.com](mailto:eoicewrd@gmail.com)

Sd/-  
Chief Engineer  
Water Resources Department  
Assam Water Centre  
5<sup>th</sup> Floor Basistha Chariali, Ghy. - 29

**Memo no.:** - CE/CC/WR/NIT/2019-20/1003/123-A  
Copy to,

Dated Guwahati the 28/02/2022

1. The Secretary to the Govt. of Assam, Water Resources Department, Dispur for favour of kind information.
2. The Chief Engineer, Quality Control, Water Resources Department, Chandmari, for favour of information.
3. The Director of Information and Public Relation, Dispur, Guwahati- 6 for publication of the Press Notice in three widely Circulated daily newspapers one in Assamese one in English and one in Bengali (specially for Barak Valley) on or before **02/03/2022**
4. The Superintendent, Assam Govt. Press, Bamunimaidan, Guwahati - 21 for information and for publication in Assam Gazette.

Sd/-  
Chief Engineer  
Water Resources Department  
Assam Water Centre  
5<sup>th</sup> Floor Basistha Chariali, Ghy. - 29

## Expression of Interest (EOI) Details

**Reference No:** - *CE/WR/EOI/2020-21/IV*

**EOI Dates:** - As per Time schedule.

**Description:** - **Empanelment of Manufacturer/Brand/ Make of Geo Synthetics Products as recommended Brand/Make of Water Resources Department, Govt. of Assam**

**Department:** - Water Resources Department, Govt. of Assam

**Empanelment (EOI) processing Fees:** - Rs. 25,000.00 (*Rupees Twenty Five Thousand*) only

### Time Schedule

SI No	Item	Start Date & Time
1	EOI Publication date	01/03/2022
2	Document download start date	01/03/2022 10.00 AM.
3	EOI Submission Start Date	09/03/2022 10.00 AM.
4	Pre EOI Meeting	07/03/2022 01.00 PM.
5	EOI Submission End Date	15/03/2022 12.00 PM.
6	EOI Opening Date	15/03/2022 01.00 PM.

Note:-i) In the event of any bandh and Holiday, same time on the next working day shall be taken in to account.

Pre-EOI meeting will be held on: 07/03/2022

Govt. of Assam  
**OFFICE OF THE CHIEF ENGINEER**  
**WATER RESOURCES DEPARTMENT**  
**ASSAM WATER CENTRE**  
5<sup>th</sup> Floor, Basistha Chariali, Guwahati - 29

**Detailed Notice**  
**Invitation for Expression of Interest (EOI) for Empanelment**

**General Information**

**1. Background**

The Water Resources Department, Govt. of Assam, has been undertaking flood management and river bank erosion protection works in Assam. Since past few years, the department is using different type of Geo textile materials like Geo Bags, Geo Mattress, Geo Sheets and Geo Tubes etc. in the flood management/ river bank protection works across the state. The consumption of these Geo textile products are in increasing trend, as new projects are being taken up to combat the flood and river bank erosion problem of the state.

With a view to ensure proper quality standards of Geo textile products used in the flood management/ bank protection works in Assam, the Water Resources Department hereby invites Expression of Interest (EOI) from reputed manufactures of the Geo Textile products of various items (as per Annexure -I), for empanelment of their products recommended Make/Brand in Water Resources Department, Assam, to be used in forthcoming Schemes/Projects to be executed by the department in future.

**2. Scope of EOI:**

- i. On behalf of the Hon'ble Governor of Assam, the Chief Engineer, Water Resources Department, Guwahati (referred to employer in this document) invites EOIs for the Empanelment of Manufacturer/Brand/Make of Geo Textile Products as recommended Brand/Make of Water Resources Department, Govt. of Assam. The list and specifications of the Geo Textile Products are annexed as Annexure - I
- ii. The Manufacturers/ Companies/ Firms may submit EOIs for any or all of the items, detailed in the table given at Annexure - I
- iii. The Manufacturers/ Companies/ Firms are requested to carefully examine the conditions and technical specifications of the materials before submission of applications against this Expression Of Interest (EOI)

**3. Price Quotations**

The Manufacturers/ Companies, submitting proposal for empanelment of their products, are requested to submit the rate quotation of the products as per Annexure - II. The rates of the products should be F.O.R. Guwahati and should include all the taxes including GST. The rates should be quoted in both figures and words. The rate quotations are invited so as to decide upon the departmental scheduled rates against the item/ specifications for incorporation in future project estimates.

**4. Period of Empanelment**

Initially the empanelment shall be for 3 (three) years which may be extended for another period depending on performance of the products. A committee will scrutinize the proposals of the Manufacturers and take the decision on the empanelment of the Geo textile products as recommended make/brand. Review for empanelment will be done annually.

**5. One EOI per Manufacturer/ Company**

Only one EOI will be admissible against each Manufacturers/ Companies. A Manufacturer/

Company who submits more than one EOI application will be liable to disqualified.

#### **6. EOI Processing Fee**

An amount of Rs 25,000.00 (Rupees Twenty Five Thousand) only will have to be payable as Processing Fee in the form of Demand Draft, drawn in favour of "Assistant Chief Engineer, Office of the Chief Engineer, Water Resources Department, Assam Water Centre, 5<sup>th</sup> Floor, Basistha Chariali, Guwahati -781029".

This processing fee will be non-refundable even if the company fails to qualify for empanelment. Application without processing fee will not be entertained.

#### **7. Pre-EOI Participation Meeting**

- i. A pre-participation meeting will be held on 07/03/2022 at 01 AM, prior to submission of EOI at the Conference Hall of the office of the Chief Engineer, Water Resources Department, Assam Water Centre, Basistha Chariali, Guwahati -781029 for any clarification, discussions/suggestions/queries on EOI.
- ii. The Companies/Manufacturers willing to make the presentations of their products can do so during the meeting.
- iii. Attendance in the pre-participation meeting will not be mandatory for the agencies seeking empanelment of their products. Non-attendance at the pre-EOI meeting will not be treated as disqualification of any Companies/Manufacturers.
- iv. The Companies/Manufacturers may also come up with any new or innovative proposal of GeoSynthetic products, relevant to the flood/river bank erosion management sector, and can share detailed information/ make the presentations in the pre-participation meeting.

#### **8. Amendment of EOI Documents**

- i. Before the deadline for submission of EOIs, the Employer may modify the EOI documents by issuing addenda/ corrigendum.
- ii. Any addendum/ corrigendum thus issued shall be part of the EOI documents and will be available in the website (<https://waterresources.assam.gov.in>)
- iii. The Employer may, at his discretion, extend as necessary the deadline for submission of EOIs.

#### **9. Language of the EOI**

All documents relating to the EOI shall be in the English language.

#### **10. Parts of the EOI**

##### **Part - I : Technical**

The Technical part of the EOI contains technical and other relevant information required for Empanelment of Manufacturer/Brand/Make of Geo Textile Products as recommended Brand/Make of Water Resources Department, Govt. of Assam.

##### **Part - II : Financial (Rates Quote)**

In the Financial part of the EOI, rate quotes are invited from the Manufacturers/ Companies against their Geo Textile Products submitting proposals for empanelment in the Water Resources Department, Govt. of Assam. The unit rates and the prices shall be quoted entirely in Indian Rupees. The rate quotes are to be submitted as per format in the Annexure -II.

##### **Part - III : EOI Processing Fee**

An amount of Rs 25000.00 (Rupees Twenty Five Thousand) only will have to be payable as non- refundable EOI Processing Fee in the form of Demand Draft, drawn in favour of "Assistant Chief Engineer, Office of the Chief Engineer, Water Resources Department, Assam Water Centre, 5<sup>th</sup> Floor, Basistha Chariali, Guwahati -781029".

## **11. Format and Signing of EOI**

All the pages of the EOI document along with all supporting documents are to be self attested by a person or persons duly authorized to sign on behalf of the Manufacturers/ Companies/ Manufacturers. All pages of the EOI where entries or amendments have been made, shall initialed by the person or persons signing the EOI.

## **12. Submission of the EOI**

- i. The EOI should be submitted in one envelope containing 3(three) envelopes marked as under.
  - a) *Envelope No-1* should be marked as Technical Proposal and should contain all the information relating to empanelment of Geo Textile products.
  - b) *Envelope No-2* should be marked as Rate Quotes and should contain the rate quotes against the Geo Textile products proposed for empanelment.
  - c) *Envelope No-3* should be marked as Processing Fee and should contain the Demand Draft for EOI Processing Fee.
  - d) All the envelopes should be sealed properly.
- ii. The Manufacturers/Companies shall submit the EOI to the Chief Engineer, Water Resources Division, Assam Water Centre, 5<sup>th</sup> Floor, Basistha Chariali, Guwahati - 781029 through Courier/Registered Post/Speed Post or in person.
- iii. Nominated person to receive EOI application when sent in person.
  - a) Executive Engineer, Construction Cell, Office of the Chief Engineer, Water Resources Department, Assam Water Centre, 5<sup>th</sup> Floor, Basistha Chariali, Guwahati -781029.  
(e-Mail- [eoicewrd@gmail.com](mailto:eoicewrd@gmail.com) )
  - b) Deputy Director , EDRT , Office of the Chief Engineer, Water Resources Department, Assam Water Centre, 5<sup>th</sup> Floor, Basistha Chariali, Guwahati - 781029. (e-Mail- [eoicewrd@gmail.com](mailto:eoicewrd@gmail.com))

## **13. Late receipt of EOI applications**

Any applications /EOI will not be received by the Employer after the deadline.

## **14. Withdrawal of EOI application**

The Manufacturers/ Companies may withdraw their EOIs before the deadline.

## **15. Validity of EOI**

EOIs shall remain valid for period not less than 365 days after the deadline date for EOI submission (EOI Submission End Date).

## **16. Ownership of EOI documents and information therein**

All Expression of Interest (EOI) documents will become the property of Water Resources Department Assam, upon submission. Where the Applicant believes that information provided in response to this EOI is/should be kept confidential; or disclosure of this information would unreasonably affect the Proponent's business affairs, a request letter is to be given along with the EOI clearly listing the document/information to kept as "confidential". In such cases, so far as practicable, Water Resources Department Assam, will give effect to the Applicant's requests. Access of such information will only be determined as per provision of the RTI Act, 2005.

## **17. Non contractual Obligation**

The Water Resources Department, Govt. of Assam, is not bound contractually or in any other way to any Applicant to this Expression of interest. Water Resources Department is not liable for any costs of compensation in relation to the consideration of this Expression of Interest. The empanelment does in no way means that the Water Resources Department, Assam is bound to procure the item(s). The approved/ empaneled make/ brand may be procured either by department itself or through its contractors in due course of time. Submission of application

does not mean that item will be included in the list of recommended makes.

**18. Reservation of Right for Empanelment**

For a particular item there may be more than one make/manufacturer in the list of recommended makes of items as decided by the Department. The Water Resources Department reserves the full rights to empanel any manufacturer/firm of repute even without submission of any application. The Water Resources Department also reserves full rights to remove any manufacturer from empaneled list at any time, if the quality of the Geo textile materials is found unsatisfactory or for any other reason which Water Resources Department found appropriate for the same.

**19. Opening of EOI**

The EOIs will be opened on the scheduled date and time mentioned in the Time Schedule, in presence of the applicants, who likes to be present.

**20. Visit to Manufacturing Facilities**

A Committee of officers of Water Resources Department may visit the Manufacturing Facilities of the Company/Manufacturer before empanelment of their products.

**21. Evaluation of EOIs**

A committee will scrutinize the proposals of the Manufacturers/Companies and take the decision on the empanelment of the Geo textile products as recommended make/brand after consideration of all technical and other relevant details. Review for empanelment will be done annually.

**22. Short listing of Applicants**

Empaneled manufacturers would be individually notified after the evaluation process of empanelment is complete. The empaneled list of products will also be displayed in the departmental Web Site.

**23. Empanelment**

After empanelment, the Name of Manufacturers/Makes/Brands may be listed as recommended products list of the Water Resources Department, Assam, and the Contractors of the Department will only be allowed to use the items of empaneled/recommended Makes/Brands during execution of the flood management/ river bank protection works across the state of Assam.

**24. Removal from Empanelment**

The Water Resources Department also reserves full rights to remove any manufacturer/ firm from empaneled list at any time, if the quality of the Geo textile materials is found unsatisfactory or for any other reason which Water Resources Department found appropriate for the same. The Water Resources Department reserves the right to send the sample of geo synthetic materials to any NABL accredited laboratory/ Departmental laboratory for testing, if found necessary.

When the manufacturer is found lacking in performance in terms of response, delivery, compliance, capacity, quality standard or ethics, the manufacturer may be removed from the approved list after giving performance notice as per the conditions of empanelment.

Besides, there may be registered company who cease to exist or have been acquired by or merged with another company, such company will be removed from the empaneled list.

**25. Information to be submitted**

The Manufacturer satisfying the minimum eligibility criteria mentioned in this EOI should fill up the enclosed format for empanelment along with rate quotes of their products and submit the same to the Chief, Engineer, Water Resources Department, Assam Water Centre, 5<sup>th</sup> Floor, Basistha Chariali, Guwahati -781029, on or before the date and time specified.

## 26. Disclaimer

The issue of this document does not in any way commit or otherwise obliges Water Resources Department to proceed with all or any part of the empanelment process.

The Water Resources Department, may, at its absolute discretion, abandon any part or whole of the process without giving prior notice. The Water Resources Department also reserves the right to consider or reject any offer/EOI at any point of time without assigning any reasons whatsoever.

### **Minimum Eligibility Conditions**

1. The Company/Manufacturer should be registered in India. Details of location of office, factory/manufacturing unit/production lines must be under the ownership of the company/manufacturer/firm participating the EOI
2. The Company/Manufacturer should have registration number with GST and/or other Government Departments as applicable,
3. The Company/Manufacturer must be a manufacturer of relevant products in India for minimum last 3 years. (Manufacturer means the Company/Manufacturer engaged in entire manufacturing process from converting raw materials i.e. **granules or fibers/ multifilament/ chemicals/ additives etc.** to finished products).
4. The Company/Manufacturer should have confirmative test certificates from NABL Accredited Laboratory against the relevant Geo textile items, as specified in BIS and ISO or desired standard/specifications.
5. The Company/Manufacturer should have its own in-house testing facilities as per BIS/ISO Standards at its production facilities. The Company/Manufacturer must provide list of all testing tools and machineries available with them for testing of geo – textile materials.
6. The Company/Manufacturer should have arrangement for delivering the Geo textile materials at Guwahati, Assam, at short notice.
7. On empanelment, it is desirable that the Company/Manufacturer make its distribution system at Guwahati or any other city of Assam, for easy availability of the products.
8. Any Government/State/PSU in India should not have blacklisted the Company/Manufacturer.
9. The Geo textile products of the Company/Manufacturer should have requisite Brand Hologram/Imageprinted on it suitably.
10. The Company/Manufacturer should provide a brief note about raw material and their approved sources. Procurement details of raw materials for production of Geo – textile materials certified by Chartered Accountant for the last 3 (Three) financial years must be submitted.
11. Item wise detailed specifications of Geo textile products are given in Annexure-I
12. Item wise present production capacity of the plants/manufacturing units of the manufacturer per annum in units specified in Annexure – II must be submitted.
13. Item wise Geo - textile products manufactured and supplied during the last 3 (Three) financial years in units specified in Annexure – II must be submitted.

## **Special Conditions and required information for Empanelment**

For empanelment, the Manufacturers/ Companies will be required to submit the following information.

- 1) Company profile -
  - a) Brief note about the Company/Manufacturer.
  - b) Location of Company Head Office/ Zonal office/ Regional office/ Local office and its Manufacturing facilities.
  - c) Range of products being manufactured.
  - d) Brief note about organization structure.
  - e) Brief note about raw material and their approved sources.
  - f) Available laboratory, equipment and machineries.
  - g) Calibration certificates of equipment.
- 2) Quality Assurance plan for manufacturing of the product.
- 3) To ensure the quality of the material supplied by the Company/Manufacturer, it is necessary that regular checks/Quality audit shall be made on their Quality Assurance Programme including machinery & plant, man-power, sources of raw-material and their own internal quality checks. Detailed report incorporating the information is to be submitted.
- 4) Details of various items being manufactured
- 5) Details of customer(s) and supplies made for the item(s) proposed during last 3 (three) years.
- 6) Experience and expertise for the items proposed in EOI.
- 7) Details of professional with their experience,
- 8) Detailed proposal for items proposed in EOI including alternative proposal, if any.
- 9) Details of Intellectual Property Rights (IPR) held, patent filed/held and MOU/agreement signed, if any.
- 10) Turnover and net worth in the last three financial years (2018 -19 to 2020 - 21) is as under: -

Financial Year	Turnover	Net Worth
2018-2019		
2019-2020		
2020-2021		

- 11) The justification notes (with comparative study/specialty) submitted by the Company/Manufacturer justifying inclusion of its products in the empaneled list.
- 12) The certification empanelment of the products of the company submitted along with the EOI, if the products of the Company/Manufacturer are already included in the approved vendor's list of any other Government/Semi Government organization/PSU.
- 13) An affidavit (duly notarized) stating that the Company/Manufacturer is not blacklisted by any Government/State/PSU in India is to be submitted)
- 14) The declaration of the Company/Manufacturer (duly notarized) regarding the pending disputes, if any, with Government/State/PSU.
- 15) A note on previous litigation with any organization if any.
- 16) Certificate of successful performance of the products in the projects of similar nature executed by other Govt./PSU/other concerning agencies in any part of India (if any) are to be submitted along with the proposal.

- 17) Item wise present production capacity of the plants/manufacturing units of the manufacturer per annum in units specified in Annexure – II must be submitted.
- 18) Item wise Geo - textile products manufactured and supplied during the last 3 (Three) financial years in units specified in Annexure – II must be submitted.
- 19) Preference shall be given to quality as well quantity. Submission of evidence by the Company/Manufacturer of successful running performance of its products in works/projects with quantum of supply, issued by the officer not below the rank of Executive Engineer or equivalent.
- 20) The Department may seek any other document(s) from the manufacturer/ make during the process of empanelment.
- 21) The decision of the Water Resources Department, Assam, in regards of empanelment will be final and binding.
- 22) Litigation matters, if any, should be addressed to Gauhati High Court only.

Chief Engineer  
Water Resources Department  
Assam Water Centre,  
5<sup>th</sup> Floor, Basistha Chariali, Ghy. -  
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## Appendix / Check List

The Manufacturers/ Companies/ Firms must submit the following particulars with the EOI

1. Company profile -
  - a. Brief note about the Company/Manufacturer.
  - b. Location of Company Head Office/ Zonal office/ Regional office/ Local office and its Manufacturing facilities.
  - c. Range of products being manufactured.
  - d. Brief note about organization structure.
  - e. Brief note about raw material and their approved sources.
  - f. Available laboratory, equipment and machineries.
  - g. Calibration certificates of equipment.
2. Quality Assurance plan for manufacturing of the product.
3. To ensure the quality of the material supplied by the Company/Manufacturer, it is necessary that regular checks/Quality audit shall be made on their Quality Assurance Programme including machinery & plant, man-power, sources of raw-material and their own internal quality checks. Detailed report incorporating the information is to be submitted.
4. Details of various items being manufactured
  - i. Details of customer(s) and supplies made for the item(s) proposed during last 3 (three) years.
  - ii. Experience and expertise for the items proposed in EOI.
  - iii. Details of professional with their experience,
  - iv. Detailed proposal for items proposed in EOI including alternative proposal, if any.
  - v. Details of Intellectual Property Rights (IPR) held, patent filed/held and MOU/agreement signed, if any.
5. Turnover and net worth in the last three financial years (2018 - 19 to 2020 - 21) is as under: -

Financial Year	Turnover	Net Worth
2018-2019		
2019-2020		
2020-2021		
6. The Company/Manufacturer should submit a note (with comparative study / specialty) justifying inclusion of its products in the empaneled list.
7. If the products of the Company/Manufacturer are already included in the approved vendor's list of any other Government/Semi Government organization/PSU, then the copies of same are to be submitted along with the EOI.
8. An affidavit (duly notarized) stating that the Company/Manufacturer is not blacklisted by any Government/State/PSU in India is to be submitted)
9. The Company/Manufacturer shall declare (duly notarized) the pending disputes, if any, with Government/State/PSU.
10. Certificate of successful performance of the products in the projects of similar nature executed by other Govt./PSU/other concerning agencies in any part of India (if any) are to be submitted along with the proposal.
11. Item wise present production capacity of the plants/manufacturing units of the manufacturer per annum in units specified in Annexure – II are to be submitted.
12. Item wise Geo - textile products manufactured and supplied during the last 3 (Three) financial years in units specified in Annexure – II are to be submitted.

13. Preference shall be given to quality as well quantity. Hence Company/Manufacturer should submit the evidence of successful running performance of its products in works/projects with quantum of supply, issued by the officer not below the rank of Executive Engineer or equivalent.
14. The bidder must submit the quotation of rate against the items manufactured by them as per units enlisted at Annexure - II. The submission of EOI without quotation of rate will not be accepted.

*NOTE:*

1. *All affidavits should be Notary.*
2. *The W.R. Department may verify any documents with concerned authority and any discrepancy may lead to rejection of EOI application.*

**Empanelment of Manufacturer/Brand/Make of Geo Synthetics Products as recommended Brand/Make of Water Resources Department, Govt. of Assam**

**Specifications of Geo Textile Products**

<b>Sl. no.</b>	<b>Specifications</b>
1	<p>Supply of Geo - textile bags of type - A (1.03 × 0.70M) inner to inner made of Geo - textile non - woven fabric sheets of 400 GSM manufactured from 100% virgin Polypropylene (PP) fibre with minimum properties as per IS 16653 : 2017 (i) Wide Tensile strength (MD) ≥ 20KN/m &amp; Wide Tensile strength(CD) ≥ 20 KN/m (ii) Elongation (MD) ≥ 50% &amp; Elongation (CD) ≥ 50% (iii) Abrasion ≥ 95% (iv) Trapezoidal Tear Strength (MD) ≥ 450N &amp; Trapezoidal Tear Strength (CD) ≥ 450N (v) CBR Puncture strength ≥ 4000N (vi) Permittivity ≥ 1.10s - 1 (vii) Permeability ≥ 40l/m<sup>2</sup>/sec (viii) AOS ≤ 75 micron (ix) UV Resistance @ 500 hours retained Tensile strength (MD) &amp; (CD) ≥ 80% (x) Mass ≥ 400 gm/m<sup>2</sup> (xi) Thickness at 2 KPa ≥ 3 mm (xii) Seam strength ≥ 80 % of actual fabric strength.</p> <p><i>Stitching of Bags should be Ring Spun Yarn stitches with 2500 - 3000 denier double line chain stitch with overlap with stitches along the edge @ minimum 15 stitches per 100mm. (Bags are to be supplied of 100 numbers in a bundle, properly packed with each bag having proper tag with name of Manufacturer, Batch Number, the GSM and type of polymer encrypted and stitched on top corner and each bag is to be marked with “WRD, Govt. of ASSAM” to be printed distinctly. Test Certificate from approved NABL accredited and ISO (Certified Laboratory should invariably be submitted against each batch of material).</i></p>
2	<p>Supply of Geo - textile bags of type - A (1.03 × 0.70M) inner to inner made of Geo - textile non - woven fabric sheets of 300 GSM manufactured from 100% virgin Polypropylene (PP) fibre with minimum properties as per IS 16653:2017 (i) Wide Tensile strength (MD) ≥ 15KN/m &amp; Wide Tensile strength (CD) ≥ 15KN/m (ii) Elongation (MD) ≥ 50% &amp; Elongation (CD) ≥ 50% (iii) Abrasion ≥ 95% (iv) Trapezoidal Tear Strength (MD) ≥ 340N &amp; Trapezoidal Tear Strength (CD) ≥ 340N (v) CBR Puncture strength ≥ 3000N (vi) Permittivity ≥ 1.25s – 1 (vii) Permeability ≥ 60l/m<sup>2</sup>/sec (viii) AOS ≤ 75micron (ix) UV Resistance @ 500 hours retained Tensile strength (MD) &amp; (CD) ≥ 80% (x) Mass ≥ 300 gm/m<sup>2</sup> (xi) Thickness at 2 KPa ≥ 3 mm (xii) Seam strength ≥ 80 % of actual fabric strength.</p> <p><i>Stitching of Bags should be Ring Spun Yarn stitches with 2500 – 3000 denier double line chain stitch with overlap with stitches along the edge @ minimum 15 stitches per 100 mm. (Bags are to be supplied of 100 numbers in a bundle, properly packed with each bag having proper tag with name of Manufacturer, Batch Number, the GSM and type of polymer encrypted and stitched on top corner and each bag is to be marked with “WRD, Govt. of ASSAM” to be printed distinctly. Test Certificate from approved NABL accredited and ISO Certified Laboratory should invariably be submitted against each batch of material).</i></p>
3	<p>Supply of Geo Bags Type - B (Size 2.00m × 1.50m inner to inner) (Pillow Type) made of composite layers of Polypropylene (PP) fibre as per <b>IS 16653:2017 for Nonwoven and IS 16654:2017 for Woven: Woven Geo - textile for the outer cover (300 gsm)</b>: The woven geo textile is woven with multifilament woven fabric manufactured from ultra violet stabilized polypropylene. Geo - textile used to manufacture geo - textile bags should have high mechanical properties for enhanced durability along with enhanced puncture, abrasion and U.V. resistance characteristics. Geo-textile should be inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.</p> <p><b>Properties:</b> (i) Tensile strength (MD) ≥ 80 KN/m &amp; Tensile strength (CD) ≥ 70 KN/m (ii) Elongation (MD) ≤ 25% &amp; Elongation (CD) ≤ 25% (iii) Abrasion ≥ 75% (iv) Trapezoidal Tear Strength (MD) ≥ 1500N &amp; Trapezoidal Tear Strength (CD) ≥ 1300N (v) CBR Puncture strength ≥ 900N (vi) Permeability ≥ 18 l/m<sup>2</sup>/sec (viii) AOS ≤ 250 micron (ix) UV Resistance @ 500 hours retained Tensile strength (MD) &amp; (CD) ≥ 80% (x) Mass ≥ 300 gm/m<sup>2</sup> (xi) Seam strength ≥ 50 % of actual fabric strength.</p>

Sl. no.	Specifications
	<p><b>Non - Woven Geo - textile for the inner layer (300 gsm):</b> It is needle punched non - woven geo - textile made of 100% polypropylene staple fibres which are formed into a random network for dimensional stability. It should resist UV degradation, rotting and alkalis.</p> <p><b>Properties:</b> (i) Wide Tensile strength (MD) <math>\geq</math> 15 KN/m &amp; Wide Tensile strength (CD) <math>\geq</math> 15 KN/m (ii) Elongation (MD) <math>\geq</math> 50% &amp; Elongation (CD) <math>\geq</math> 50% (iii) Abrasion <math>\geq</math> 95% (iv) Trapezoidal Tear Strength (MD) <math>\geq</math> 340 N &amp; Trapezoidal Tear Strength (CD) <math>\geq</math> 340 N (v) CBR Puncture strength <math>\geq</math> 3000 N (vi) Permittivity <math>\geq</math> 1.25 s-1 (vii) Permeability <math>\geq</math> 60 l/m<sup>2</sup>/sec (viii) AOS <math>\leq</math> 75 micron (ix) UV Resistance @ 500 hours retained Tensile strength (MD) &amp; (CD) <math>\geq</math> 80% (x) Mass <math>\geq</math> 300 gm/m<sup>2</sup> (xi) Thickness at 2 KPa <math>\geq</math> 3 mm (xii) Seam strength <math>\geq</math> 80 % of actual fabric strength.</p> <p><i>Stitching of Bags should be Ring Spun Yarn stitches with 2500-3000 denier double line chain stitch with overlap with stitches along the edge. (Bags are to be supplied of 15 numbers in a bundle, properly packed with each bag having proper tag with name of Manufacturer, Batch Number, the GSM and type of polymer encrypted and stitched on top corner and each bag is to be marked with "WRD, Govt. of ASSAM" to be printed distinctly. Test Certificate from approved NABL accredited and ISO Certified Laboratory should invariably be submitted against each batch of material).</i></p>
4	<p>Supply of non - woven Geo - textile fabric sheets of 300 GSM manufactured from 100% virgin Polypropylene (PP) fibre with minimum properties as per IS 16653:2017 (i) Wide Tensile strength (MD) <math>\geq</math> 15KN/m &amp; Wide Tensile strength (CD) <math>\geq</math> 15KN/m (ii) Elongation(MD) <math>\geq</math> 50% &amp; Elongation(CD) <math>\geq</math> 50% (iii) Abrasion <math>\geq</math> 95% (iv) Trapezoidal Tear Strength (MD) <math>\geq</math> 340 N &amp; Trapezoidal Tear Strength (CD) <math>\geq</math> 340 N (v) CBR Puncture strength <math>\geq</math> 3000 N (vi) Permittivity <math>\geq</math> 1.25 s-1 (vii) Permeability <math>\geq</math> 60l/m<sup>2</sup>/sec (viii) AOS <math>\leq</math> 75micron (ix) UV Resistance @ 500 hours retained Tensile strength (MD) &amp; (CD) <math>\geq</math> 80% (x) Mass <math>\geq</math> 300gm/m<sup>2</sup> (xi) Thickness at 2KPa <math>\geq</math> 3mm.</p> <p><i>(Each Roll of Geo Fabric Sheet should be supplied in properly packed Bundles and should be marked with the Name of Manufacturer, Batch Number &amp; its dimensions clearly on each roll with "WRD, Govt. of ASSAM" to be printed on it and mentioning properly the GSM and type of polymer and Test Certificate from approved NABL accredited and ISO Certified Laboratory should invariably be submitted against each batch of material).</i></p>
5	<p>Supply of G - Mat in double layered composite Geo - textile fabricated to form a three dimensional mattresses, the upper layer of the mattress being heavily woven with polypropylene fabric needle - punched with a mixture of U.V. stabilized green fibres and cut tape yarns with Upper Layer Properties as (i) Mass per unit area &gt; 650 GSM, (ii) Tensile Strength (MD) <math>\geq</math> 70kN/m, (iii) Tensile Strength (CD) <math>\geq</math> 70kN/m (iv) Tensile Elongation (MD) <math>\leq</math> 25%, (v) Tensile Elongation (CD) <math>\leq</math> 25%, (vi) Pore Size &lt; 0.35mm,(vii) Abrasion Resistance <math>\geq</math> 35 %, (viii) UV @ 500 hours <math>\geq</math> 90% (ix) Resistance to Oxidation @ 100°C for 28 days) <math>\geq</math> 80% and Lower Layer Properties as (i) Mass per unit area &gt; 400 GSM, (ii) Tensile Strength(MD) <math>\geq</math> 110kN/m, (iii) Tensile Strength (CD) <math>\geq</math> 90kN/m (iv) Tensile Elongation(MD) <math>\leq</math> 25%, (v) Tensile Elongation (CD) <math>\leq</math> 25%, (vi) Pore Size &lt; 0.35mm, (vii) Abrasion Resistance <math>\geq</math> 60 %, (viii) UV @ 500 hours <math>\geq</math> 90% (ix) Resistance to Oxidation @ 100°C for 28 days) <math>\geq</math> 80%. The sewing thread should be of high tenacity polyester and parallel stitches are to be continued positioned at 350 mm apart with a stitch length not exceeding 5 mm.</p> <p><i>(Each roll of G-Mat should be supplied in properly packed bundle and should be marked with the Name of Manufacturer &amp; Batch Number &amp; its dimensions clearly on each roll with "WRD, Govt. of ASSAM" to be printed on it and mentioning properly the GSM( for both upper and lower layer) and types of polymer (for both upper and lower layer) and Test Certificate from approved NABL accredited and ISO Certified Laboratory should invariably be submitted against each batch of material) (inclusive of Custom Duty)</i></p>
5.1	Without Custom duty
6	<p>Supply of geo - textile Tube (Mega containers) of fill height of 2.5m and 25m length made of geo - textile with minimum properties as mentioned below.</p> <ol style="list-style-type: none"> <li>i. Tensile strength of geo-textile materials &gt; 200KN/m in both directions for woven geo – textiles</li> <li>ii. O95 (pore size) of the geo-textile materials &lt; 180microns.</li> </ol>

<i>Sl. no.</i>	<i>Specifications</i>
	iii. Seam strength > 70% of the material tensile strength. iv. Elongation of the material at the ultimate tensile strength should not be more than 20% v. CBR Brust Strength > 10.5 vi. Abrasion resistance (BAW Rotating Drum) > 75% of strength retained. vii. UV Resistance (ASTMD 4355-500Hrs) > 80% of strength retained. viii. The geo-textile mega containers must resist the pressure created by stacking the tubes in 3:2:1 manner.
7	Supply of woven Geo - textile Tube (Mega containers) of filled height 0.9m made of geo - textile with minimum properties as mentioned below: i) Tensile strength of geo-textile materials >65KN/m in both directions ii) O95 (Pore size) of the geo-textile materials < 180 microns, iii) Seam strength > 70% of the materials tensile strength, iv) Elongation of the material at the ultimate tensile strength should not be 65% for v) CBR Brust strength > 10.5, vi) Abrasion resistance (BAW Rotating Drum) > 75% of strength retained, vii) UV Resistance (ASTMD 4355-500 Hrs) > 80% of strength retained. (Including all taxes) (a) 10m Length
8	<b>Supply of geo - textile Tube (Mega containers) with minimum properties as mentioned below</b>
	Polymer = PP
	Tube Circumference = 4.3/8. 6/12. 9/14. 2/16/17. 2/21.6 + 5% (m)
	Fill Port (diameter) = 30 to 45 CM
	Tensile Strength (MD) ≥ 175 KN/m
	Tensile Strength (CD) ≥175 KN/m
	Elongation - MD ≤ 25%
	AOS ≤ 0.180 mm
	Permittivity ≥ 0.40 S-1
	Length = 10/15/20/25/30 m
8.a	<b>Tube Circumference = 4.3 (m)</b>
8.a.1	Length = 10m
8.a.2	Length = 15m
8.a.3	Length = 20m
8.a.4	Length = 25m
8.a.5	Length = 30m
8.b	<b>Tube Circumference = 8.6 (m)</b>
8.b.1	Length = 10m
8.b.2	Length = 15m
8.b.3	Length = 20m
8.b.4	Length = 25m
8.b.5	Length = 30m
8.c	<b>Tube Circumference = 12.9(m)</b>
8.c.1	Length=10m
8.c.2	Length =15m
8.c.3	Length =20m
8.c.4	Length =25m
8.c.5	Length =30m
8.d	<b>Tube Circumference = 14.2(m)</b>
8.d.1	Length =10m
8.d.2	Length =15m
8.d.3	Length =20m
8.d.4	Length =25m
8.d.5	Length =30m

<b>Sl. no.</b>	<b>Specifications</b>
8.e	<b>Tube Circumference = 16.0(m)</b>
8.e.1	Length =10m
8.e.2	Length =15m
8.e.3	Length =20m
8.e.4	Length =25m
8.e.5	Length =30m
9	<b>Supply of geo-textile Tube (Mega containers) with minimum properties as mentioned below</b>
	v Polymer = PP
	v Tube Circumference= 4.3/8.6/12.9/14.2/16/17.2/21.6 +5% (m)
	v Fill Port (diameter)= 30 to 45 CM
	v Tensile Strength (MD) $\geq$ 100 KN/m
	v Tensile Strength (CD) $\geq$ 100 KN/m
	v Elongation – MD $\leq$ 25%
	v AOS $\leq$ 0.180 mm
	v Permittivity $\geq$ 0.40 S-1
	v Length =10/15/20/25/30 m
9.a	<b>Tube Circumference = 4.3 (m)</b>
9.a.1	Length =10m
9.a.2	Length =15m
9.a.3	Length =20m
9.a.4	Length =25m
9.a.5	Length =30m
9.b	<b>Tube Circumference = 8.6 (m)</b>
9.b.1	Length =10m
9.b.2	Length =15m
9.b.3	Length =20m
9.b.4	Length =25m
9.b.5	Length =30m
9.c	<b>Tube Circumference = 12.9(m)</b>
9.c.1	Length =10m
9.c.2	Length =15m
9.c.3	Length =20m
9.c.4	Length =25m
9.c.5	Length =30m
9.d	<b>Tube Circumference = 14.2(m)</b>
9.d.1	Length =10m
9.d.2	Length =15m
9.d.3	Length =20m
9.d.4	Length =25m
9.d.5	Length =30m
9.e	<b>Tube Circumference = 16.0(m)</b>
9.e.1	Length =10m
9.e.2	Length =15m
9.e.3	Length =20m
9.e.4	Length =25m
9.e.5	Length =30m
10	<b>Supply of geo-textile Tube (Mega containers) with minimum properties as mentioned below</b>
	v Polymer = Polyester
	v Tube Circumference= 4.3/8.6/12.9/14.2/16/17.2/21.6 +5% (m)

<i>Sl. no.</i>	<i>Specifications</i>
	v Fill Port (diameter)= 30 to 45 CM
	v Tensile Strength (MD) $\geq 175$ KN/m
	v Tensile Strength (CD) $\geq 175$ KN/m
	v Elongation – MD $\leq 15\%$
	v AOS $\leq 0.25$ mm
	v Permeability $\geq 3 \times 10^{-3}$ m/s
	v Length =10/15/20/25/30 m
10.a	<b>Tube Circumference = 4.3 (m)</b>
10.a.1	Length =10m
10.a.2	Length =15m
10.a.3	Length =20m
10.a.4	Length =25m
10.a.5	Length =30m
10.b	<b>Tube Circumference = 8.6 (m)</b>
10.b.1	Length =10m
10.b.2	Length =15m
10.b.3	Length =20m
10.b.4	Length =25m
10.b.5	Length =30m
10.c	<b>Tube Circumference = 12.9(m)</b>
10.c.1	Length =10m
10.c.2	Length =15m
10.c.3	Length =20m
10.c.4	Length =25m
10.c.5	Length =30m
10.d	<b>Tube Circumference = 14.2(m)</b>
10.d.1	Length =10m
10.d.2	Length =15m
10.d.3	Length =20m
10.d.4	Length =25m
10.d.5	Length =30m
10.e	<b>Tube Circumference = 16.0(m)</b>
10.e.1	Length =10m
10.e.2	Length =15m
10.e.3	Length =20m
10.e.4	Length =25m
10.e.5	Length =30m
11	Supply of Rope Polypropylene (PP) Gabion of size 2m x 2m x 0.45 m having the following properties (i) Mesh opening size 150mmx150mm (ii) Rope Diameter of 9.0mm (iii) Linear Density of rope $\geq 65.1$ gm/m (iv) Tensile Strength $\geq 1900$ kg (v) Abrasion Resistance of rope after 1000 cycles $\geq 65\%$ (vi) CBR Puncture Strength $\geq 7000$ kg.

**Empanelment of Manufacturer/Brand/ Make of Geo Synthetics Products as recommended Brand/Make of Water Resources Department, Govt. of Assam**

**Rate Quotation of Geo Textile Products**

<b>Sl. no.</b>	<b>Specifications</b>	<b>Unit</b>	<b>Rate</b>	
1	<p>Supply of Geo - textile bags of type - A (1.03 × 0.70M) inner to inner made of Geo - textile non - woven fabric sheets of 400 GSM manufactured from 100% virgin Polypropylene (PP) fibre with minimum properties as per IS 16653 : 2017 (i) Wide Tensile strength (MD) ≥ 20KN/m &amp; Wide Tensile strength(CD) ≥ 20 KN/m (ii) Elongation (MD) ≥ 50% &amp; Elongation (CD) ≥ 50% (iii) Abrasion ≥ 95% (iv) Trapezoidal Tear Strength (MD) ≥ 450N &amp; Trapezoidal Tear Strength (CD) ≥ 450N (v) CBR Puncture strength ≥ 4000N (vi) Permittivity ≥ 1.10s - 1 (vii) Permeability ≥ 40l/m<sup>2</sup>/sec (viii) AOS ≤ 75 micron (ix) UV Resistance @ 500 hours retained Tensile strength (MD) &amp; (CD) ≥ 80% (x) Mass ≥ 400 gm/m<sup>2</sup> (xi) Thickness at 2 KPa ≥ 3 mm (xii) Seam strength ≥ 80 % of actual fabric strength.</p> <p><i>Stitching of Bags should be Ring Spun Yarn stitches with 2500 - 3000 denier double line chain stitch with overlap with stitches along the edge @ minimum 15 stitches per 100mm. (Bags are to be supplied of 100 numbers in a bundle, properly packed with each bag having proper tag with name of Manufacturer, Batch Number, the GSM and type of polymer encrypted and stitched on top corner and each bag is to be marked with "WRD, Govt. of ASSAM" to be printed distinctly. Test Certificate from approved NABL accredited and ISO (Certified Laboratory should invariably be submitted against each batch of material).</i></p>	Each	Rs.	
2	<p>Supply of Geo - textile bags of type - A (1.03 × 0.70M) inner to inner made of Geo - textile non - woven fabric sheets of 300 GSM manufactured from 100% virgin Polypropylene (PP) fibre with minimum properties as per IS 16653:2017 (i) Wide Tensile strength (MD) ≥ 15KN/m &amp; Wide Tensile strength (CD) ≥ 15KN/m (ii) Elongation (MD) ≥ 50% &amp; Elongation (CD) ≥ 50% (iii) Abrasion ≥ 95% (iv) Trapezoidal Tear Strength (MD) ≥ 340N &amp; Trapezoidal Tear Strength (CD) ≥ 340N (v) CBR Puncture strength ≥ 3000N (vi) Permittivity ≥ 1.25s – 1 (vii) Permeability ≥ 60l/m<sup>2</sup>/sec (viii) AOS ≤ 75micron (ix) UV Resistance @ 500 hours retained Tensile strength (MD) &amp; (CD) ≥ 80% (x) Mass ≥ 300 gm/m<sup>2</sup> (xi) Thickness at 2 KPa ≥ 3 mm (xii) Seam strength ≥ 80 % of actual fabric strength.</p> <p><i>Stitching of Bags should be Ring Spun Yarn stitches with 2500 – 3000 denier double line chain stitch with overlap with stitches along the edge @ minimum 15 stitches per 100 mm. (Bags are to be supplied of 100 numbers in a bundle, properly packed with each bag having proper tag with name of Manufacturer, Batch Number, the GSM and type of polymer encrypted and stitched on</i></p>	Each	Rs.	

Sl. no.	Specifications	Unit	Rate	
	<p>top corner and each bag is to be marked with “WRD, Govt. of ASSAM” to be printed distinctly. Test Certificate from approved NABL accredited and ISO Certified Laboratory should invariably be submitted against each batch of material).</p>			
3	<p>Supply of Geo Bags Type - B (Size 2.00m × 1.50m inner to inner) (Pillow Type) made of composite layers of Polypropylene (PP) fibre as per <b>IS 16653:2017 for Nonwoven and IS 16654:2017 for Woven:</b></p> <p><b>Woven Geo - textile for the outer cover (300 gsm):</b> The woven geo textile is woven with multifilament woven fabric manufactured from ultra violet stabilized polypropylene. Geo - textile used to manufacture geo - textile bags should have high mechanical properties for enhanced durability along with enhanced puncture, abrasion and U.V. resistance characteristics. Geo-textile should be inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.</p> <p><b>Properties:</b> (i) Tensile strength (MD) ≥ 80 KN/m &amp; Tensile strength (CD) ≥ 70 KN/m (ii) Elongation (MD) ≤ 25% &amp; Elongation (CD) ≤ 25% (iii) Abrasion ≥ 75% (iv) Trapezoidal Tear Strength (MD) ≥ 1500N &amp; Trapezoidal Tear Strength (CD) ≥ 1300N (v) CBR Puncture strength ≥ 900N (vii) Permeability ≥ 18 l/m<sup>2</sup>/sec (viii) AOS ≤ 250 micron (ix) UV Resistance @ 500 hours retained Tensile strength (MD) &amp; (CD) ≥ 80% (x) Mass ≥ 300 gm/m<sup>2</sup> (xi) Seam strength ≥ 50 % of actual fabric strength.</p> <p><b>Non - Woven Geo - textile for the inner layer (300 gsm):</b> It is needle punched non - woven geo - textile made of 100% polypropylene staple fibres which are formed into a random network for dimensional stability. It should resist UV degradation, rotting and alkalis.</p> <p><b>Properties:</b> (i) Wide Tensile strength (MD) ≥ 15 KN/m &amp; Wide Tensile strength (CD) ≥ 15 KN/m (ii) Elongation (MD) ≥ 50% &amp; Elongation (CD) ≥ 50% (iii) Abrasion ≥ 95% (iv) Trapezoidal Tear Strength (MD) ≥ 340 N &amp; Trapezoidal Tear Strength (CD) ≥ 340 N (v) CBR Puncture strength ≥ 3000 N (vi) Permittivity ≥ 1.25 s-1 (vii) Permeability ≥ 60 l/m<sup>2</sup>/sec (viii) AOS ≤ 75 micron (ix) UV Resistance @ 500 hours retained Tensile strength (MD) &amp; (CD) ≥ 80% (x) Mass ≥ 300 gm/m<sup>2</sup> (xi) Thickness at 2 KPa ≥ 3 mm (xii) Seam strength ≥ 80 % of actual fabric strength.</p> <p><i>Stitching of Bags should be Ring Spun Yarn stitches with 2500-3000 denier double line chain stitch with overlap with stitches along the edge. (Bags are to be supplied of 15 numbers in a bundle, properly packed with each bag having proper tag with name of Manufacturer, Batch Number, the GSM and type of polymer encrypted and stitched on top corner and each bag is to be marked with “WRD, Govt. of ASSAM” to be printed distinctly. Test Certificate from approved NABL accredited and ISO Certified Laboratory should invariably be submitted against each batch of material).</i></p>	Each	Rs.	
4	<p>Supply of non - woven Geo - textile fabric sheets of 300 GSM manufactured from 100% virgin Polypropylene (PP) fibre with minimum properties as per IS 16653:2017 (i) Wide Tensile</p>	Sqm	Rs.	

Sl. no.	Specifications	Unit	Rate	
	<p>strength (MD) <math>\geq</math> 15KN/m &amp; Wide Tensile strength (CD) <math>\geq</math> 15KN/m (ii) Elongation(MD) <math>\geq</math> 50% &amp; Elongation(CD) <math>\geq</math> 50% (iii) Abrasion <math>\geq</math> 95% (iv) Trapezoidal Tear Strength (MD) <math>\geq</math> 340 N &amp; Trapezoidal Tear Strength (CD) <math>\geq</math> 340 N (v) CBR Puncture strength <math>\geq</math> 3000 N (vi) Permittivity <math>\geq</math> 1.25 s-1 (vii) Permeability <math>\geq</math> 60l/m<sup>2</sup>/sec (viii) AOS <math>\leq</math> 75micron (ix) UV Resistance @ 500 hours retained Tensile strength (MD) &amp; (CD) <math>\geq</math> 80% (x) Mass <math>\geq</math> 300gm/m<sup>2</sup> (xi) Thickness at 2KPa <math>\geq</math> 3mm.</p> <p><i>(Each Roll of Geo Fabric Sheet should be supplied in properly packed Bundles and should be marked with the Name of Manufacturer, Batch Number &amp; its dimensions clearly on each roll with “WRD, Govt. of ASSAM” to be printed on it and mentioning properly the GSM and type of polymer and Test Certificate from approved NABL accredited and ISO Certified Laboratory should invariably be submitted against each batch of material).</i></p>			
5	<p>Supply of G - Mat in double layered composite Geo - textile fabricated to form a three dimensional mattresses, the upper layer of the mattress being heavily woven with polypropylene fabric needle -punched with a mixture of U.V. stabilized green fibres and cut tape yarns with Upper Layer Properties as (i) Mass per unit area &gt; 650 GSM, (ii) Tensile Strength (MD) <math>\geq</math> 70kN/m, (iii) Tensile Strength (CD) <math>\geq</math> 70kN/m (iv) Tensile Elongation (MD) <math>\leq</math> 25%, (v) Tensile Elongation (CD) <math>\leq</math> 25%, (vi) Pore Size &lt; 0.35mm,(vii) Abrasion Resistance <math>\geq</math> 35 %, (viii) UV @ 500 hours <math>\geq</math> 90% (ix) Resistance to Oxidation @ 100°C for 28 days) <math>\geq</math> 80% and Lower Layer Properties as (i) Mass per unit area &gt; 400 GSM, (ii) Tensile Strength(MD) <math>\geq</math> 110kN/m, (iii) Tensile Strength (CD) <math>\geq</math> 90kN/m (iv) Tensile Elongation(MD) <math>\leq</math> 25%, (v) Tensile Elongation (CD) <math>\leq</math> 25%, (vi) Pore Size &lt; 0.35mm, (vii) Abrasion Resistance <math>\geq</math> 60 %, (viii) UV @ 500 hours <math>\geq</math> 90% (ix) Resistance to Oxidation @ 100°C for 28 days) <math>\geq</math> 80%. The sewing thread should be of high tenacity polyester and parallel stitches are to be continued positioned at 350 mm apart with a stitch length not exceeding 5 mm.</p> <p><i>(Each roll of G-Mat should be supplied in properly packed bundle and should be marked with the Name of Manufacturer &amp; Batch Number &amp; its dimensions clearly on each roll with “WRD, Govt. of ASSAM” to be printed on it and mentioning properly the GSM( for both upper and lower layer) and types of polymer (for both upper and lower layer) and Test Certificate from approved NABL accredited and ISO Certified Laboratory should invariably be submitted against each batch of material) (inclusive of Custom Duty)</i></p>	Sqm	Rs.	
5.1	Without Custom duty	Sqm	Rs.	
6	Supply of geo - textile Tube (Mega containers) of fill height of 2.5m and 25m length made of geo -textile with minimum properties as mentioned below.	Each	Rs.	

<i>Sl. no.</i>	<i>Specifications</i>	<i>Unit</i>	<i>Rate</i>	
	i. Tensile strength of geo-textile materials > 200KN/m in both directions for woven geo – textiles ii. O95 (pore size) of the geo-textile materials < 180microns. iii. Seam strength > 70% of the material tensile strength. iv. Elongation of the material at the ultimate tensile strength should not be more than 20% v. CBR Brust Strength > 10.5 vi. Abrasion resistance (BAW Rotating Drum) > 75% of strength retained. vii. UV Resistance (ASTMD 4355-500Hrs) > 80% of strength retained. viii. The geo-textile mega containers must resist the pressure created by stacking the tubes in 3:2:1 manner.			
7	Supply of woven Geo - textile Tube (Mega containers) of filled height 0.9m made of geo - textile with minimum properties as mentioned below: i) Tensile strength of geo-textile materials >65KN/m in both directions ii) O95 (Pore size) of the geo-textile materials < 180 microns, iii) Seam strength > 70% of the materials tensile strength, iv) Elongation of the material at the ultimate tensile strength should not be 65% for v) CBR Brust strength > 10.5, vi) Abrasion resistance (BAW Rotating Drum) > 75% of strength retained, vii) UV Resistance (ASTMD 4355-500 Hrs) > 80% of strength retained. (Including all taxes) (a) 10m Length	Each	Rs.	
8	<b>Supply of geo - textile Tube (Mega containers) with minimum properties as mentioned below</b>		Rs.	
	Polymer = PP		Rs.	
	Tube Circumference = 4.3/8. 6/12. 9/14. 2/16/17. 2/21.6 + 5% (m)		Rs.	
	Fill Port (diameter) = 30 to 45 CM		Rs.	
	Tensile Strength (MD) ≥ 175 KN/m		Rs.	
	Tensile Strength (CD) ≥175 KN/m		Rs.	
	Elongation - MD ≤ 25%		Rs.	
	AOS ≤ 0.180 mm		Rs.	
	Permittivity ≥ 0.40 S-1		Rs.	
	Length = 10/15/20/25/30 m		Rs.	
8.a	<b>Tube Circumference = 4.3 (m)</b>		Rs.	
8.a.1	Length = 10m	Each	Rs.	
8.a.2	Length = 15m	Each	Rs.	
8.a.3	Length = 20m	Each	Rs.	
8.a.4	Length = 25m	Each	Rs.	
8.a.5	Length = 30m	Each	Rs.	
8.b	<b>Tube Circumference = 8.6 (m)</b>		Rs.	
8.b.1	Length = 10m	Each	Rs.	
8.b.2	Length = 15m	Each	Rs.	
8.b.3	Length = 20m	Each	Rs.	
8.b.4	Length = 25m	Each	Rs.	
8.b.5	Length = 30m	Each	Rs.	

<i>Sl. no.</i>	<i>Specifications</i>	<i>Unit</i>	<i>Rate</i>	
8.c	<b>Tube Circumference = 12.9(m)</b>		Rs.	
8.c.1	Length=10m	Each	Rs.	
8.c.2	Length =15m	Each	Rs.	
8.c.3	Length =20m	Each	Rs.	
8.c.4	Length =25m	Each	Rs.	
8.c.5	Length =30m	Each	Rs.	
8.d	<b>Tube Circumference = 14.2(m)</b>		Rs.	
8.d.1	Length =10m	Each	Rs.	
8.d.2	Length =15m	Each	Rs.	
8.d.3	Length =20m	Each	Rs.	
8.d.4	Length =25m	Each	Rs.	
8.d.5	Length =30m	Each	Rs.	
8.e	<b>Tube Circumference = 16.0(m)</b>		Rs.	
8.e.1	Length =10m	Each	Rs.	
8.e.2	Length =15m	Each	Rs.	
8.e.3	Length =20m	Each	Rs.	
8.e.4	Length =25m	Each	Rs.	
8.e.5	Length =30m	Each	Rs.	
9	<b>Supply of geo-textile Tube (Mega containers) with minimum properties as mentioned below</b>		Rs.	
	v Polymer = PP		Rs.	
	v Tube Circumference= 4.3/8.6/12.9/14.2/16/17.2/21.6 +5% (m)		Rs.	
	v Fill Port (diameter)= 30 to 45 CM		Rs.	
	v Tensile Strength (MD) $\geq$ 100 KN/m		Rs.	
	v Tensile Strength (CD) $\geq$ 100 KN/m		Rs.	
	v Elongation – MD $\leq$ 25%		Rs.	
	v AOS $\leq$ 0.180 mm		Rs.	
	v Permittivity $\geq$ 0.40 S-1		Rs.	
v Length =10/15/20/25/30 m		Rs.		
9.a	<b>Tube Circumference = 4.3 (m)</b>		Rs.	
9.a.1	Length =10m	Each	Rs.	
9.a.2	Length =15m	Each	Rs.	
9.a.3	Length =20m	Each	Rs.	
9.a.4	Length =25m	Each	Rs.	
9.a.5	Length =30m	Each	Rs.	
9.b	<b>Tube Circumference = 8.6 (m)</b>		Rs.	
9.b.1	Length =10m	Each	Rs.	
9.b.2	Length =15m	Each	Rs.	
9.b.3	Length =20m	Each	Rs.	
9.b.4	Length =25m	Each	Rs.	
9.b.5	Length =30m	Each	Rs.	
9.c	<b>Tube Circumference = 12.9(m)</b>		Rs.	
9.c.1	Length =10m	Each	Rs.	
9.c.2	Length =15m	Each	Rs.	
9.c.3	Length =20m	Each	Rs.	
9.c.4	Length =25m	Each	Rs.	
9.c.5	Length =30m	Each	Rs.	
9.d	<b>Tube Circumference = 14.2(m)</b>		Rs.	
9.d.1	Length =10m	Each	Rs.	

<i>Sl. no.</i>	<i>Specifications</i>	<i>Unit</i>	<i>Rate</i>	
9.d.2	Length =15m	Each	Rs.	
9.d.3	Length =20m	Each	Rs.	
9.d.4	Length =25m	Each	Rs.	
9.d.5	Length =30m	Each	Rs.	
9.e	<b>Tube Circumference = 16.0(m)</b>		Rs.	
9.e.1	Length =10m	Each	Rs.	
9.e.2	Length =15m	Each	Rs.	
9.e.3	Length =20m	Each	Rs.	
9.e.4	Length =25m	Each	Rs.	
9.e.5	Length =30m	Each	Rs.	
10	<b>Supply of geo-textile Tube (Mega containers) with minimum properties as mentioned below</b>		Rs.	
	v Polymer = Polyester		Rs.	
	v Tube Circumference= 4.3/8.6/12.9/14.2/16/17.2/21.6 +5% (m)		Rs.	
	v Fill Port (diameter)= 30 to 45 CM		Rs.	
	v Tensile Strength (MD) $\geq$ 175 KN/m		Rs.	
	v Tensile Strength (CD) $\geq$ 175 KN/m		Rs.	
	v Elongation – MD $\leq$ 15%		Rs.	
	v AOS $\leq$ 0.25mm		Rs.	
v Permeability $\geq$ 3x10-3 m/s		Rs.		
v Length =10/15/20/25/30 m		Rs.		
10.a	<b>Tube Circumference = 4.3 (m)</b>		Rs.	
10.a.1	Length =10m	Each	Rs.	
10.a.2	Length =15m	Each	Rs.	
10.a.3	Length =20m	Each	Rs.	
10.a.4	Length =25m	Each	Rs.	
10.a.5	Length =30m	Each	Rs.	
10.b	<b>Tube Circumference = 8.6 (m)</b>		Rs.	
10.b.1	Length =10m	Each	Rs.	
10.b.2	Length =15m	Each	Rs.	
10.b.3	Length =20m	Each	Rs.	
10.b.4	Length =25m	Each	Rs.	
10.b.5	Length =30m	Each	Rs.	
10.c	<b>Tube Circumference = 12.9(m)</b>		Rs.	
10.c.1	Length =10m	Each	Rs.	
10.c.2	Length =15m	Each	Rs.	
10.c.3	Length =20m	Each	Rs.	
10.c.4	Length =25m	Each	Rs.	
10.c.5	Length =30m	Each	Rs.	
10.d	<b>Tube Circumference = 14.2(m)</b>		Rs.	
10.d.1	Length =10m	Each	Rs.	
10.d.2	Length =15m	Each	Rs.	
10.d.3	Length =20m	Each	Rs.	
10.d.4	Length=25m	Each	Rs.	
10.d.5	Length =30m	Each	Rs.	
10.e	<b>Tube Circumference = 16.0(m)</b>		Rs.	
10.e.1	Length =10m	Each	Rs.	
10.e.2	Length =15m	Each	Rs.	
10.e.3	Length =20m	Each	Rs.	

<i>Sl. no.</i>	<i>Specifications</i>	<i>Unit</i>	<i>Rate</i>	
10.e.4	Length =25m	Each	Rs.	
10.e.5	Length =30m	Each	Rs.	
11	Supply of Rope Polypropylene (PP) Gabion of size 2m × 2m × 0.45 m having the following properties (i) Mesh opening size 150mm × 150mm (ii) Rope Diameter of 9.0mm (iii) Linear Density of rope ≥ 65.1gm/m (iv) Tensile Strength ≥ 1900kg (v) Abrasion Resistance of rope after 1000 cycles ≥ 65% (vi) CBR Puncture Strength ≥ 7000kg.	Each	Rs.	

*Note: - 1) Rates should be quoted F.O.R. Guwahati  
2) Rates should include all taxes including GST.  
3) Rates quoted should be both in words as well as in figures.*

Signature of Authorized Person  
Manufacturer/ Company/ Firm

**DECLARATION REGARDING NOBLACKLISTING BY GOVT./STATE GOVT./PSU  
IN INDIA**

**(To be executed on Rs.100/- Stamp paper & attested by Public Notary/Executive  
Magistrate by thebidder)**

I / We Proprietor/ Partner(s)/ Director(s) of M/S----- hereby declare that the firm/company namely M/S ----- .....has not been blacklisted or debarred in the past by any other Government OF India organization/ State Govt./PSU from taking part in TENDER OR EMPANELMENT In case the above information found false I/We are fully aware that the EMANELMENT application will berejected/cancelled.

Signature: - .....

Name: - .....

Capacity in which as signed: - .....

Name & address of the firm: - .....

APPLICATION FORM FOR EMPANELMENT OF VENDOR (BRAND/MAKE)

**SECTION - I :- DETAILS OF ITEMS FOR WHICH APPROVAL IS SAUGHT**

Name of Department	Water Resources Department, Assam
Items	(As per list)

**SECTION - II :- GENERAL DETAILS**

Name of the Company/ Firm	
Type of incorporation i.e. Company , Firm etc	
Brand Name	
Office Address	
Tel. No.	
Mail ID	
Fax No.	
Web site	
Name of MD/CEO/Proprietor	
Name and Designation of Contact Person along with contact details.	
Name and Designation of Contact Person in Assam/Guwahati along with contact details.	

**SECTION - III :- FACTORY DETAILS**

Location with detailed address	
Total land area in square meter of all units	
Total covered area of all units	
No. of persons employed	
Description of manpower	
Details of In-house testing facilities for raw materials and products. (Details may be attached in separate sheet)	
Registration under Companies Act and Factories Act	
GST Registration No.-	
Production Capacity , Item wise	
Volume of production during last 3 years (2017-18, 2018-19 and 2019-20) (Item wise and year wise figures are to be given)	
Annual Turn Over for last 3(three) FY as per Audited Balance Sheet.	

**SECTION -IV :-PAST PERFORMANCE**

Details of important orders executed in past in reference to supplies made for similar items	
Name of past and present clients (including State Govt./Central govt. agencies	
Whether the Company/Firm of its Brand is black listed by any client. If so, details are to be stated.	
Satisfactory performance report, if any, are to be attached.	

**SECTION -V :- STATUS OF BIS/ISO CERTIFICATION**

DATE OF OBTAINING BIS/ISO CERTIFICATION	
VALIDITY OF BIS/ISO CERTIFICATION	
CERTIFYING AGENCY	
ANY OTHER CERTIFICATE IN REGARDS OF QUALITY OF ITEMS PRODUCED. (Details may be enclosed)	

**SECTION -VI :- DOCUMENTS TO BE ATTACHED**

Certificate of incorporation of Company/Firm	
BIS/ISO Certificate	
GST Registration Certificate	
Processing Fee (Non Refundable)	i. Draft No. ii. Date iii. Amount iv. Issuing Bank v. In favour of
Affidavit as per format at Annexure-III (duly Notarised) on Non Judicial Stamp Paper of Rs 100/-	
Other Documents as stated in the Detailed Notice above	

Signature of Authorized Person  
Manufacturer/ Company/ Firm