

BANGLADESH CABLE SHILPA LIMITED, KHULNA

INTERNATIONAL TENDER FOR IMPORT OF RAW-MATERIALS FOR MANUFACTURING OF OPTICAL FIBER CABLE (OFC), COPPER CABLE AND HDPE DUCT PIPE.



INTERNATIONAL TENDER NO. 14.37.0000.702.07.262.18.619
DATED: 04-03-2018

Tender Receiving Date and Time	: 04-04-2018 up to 11-00 Hours.
Tender Opening Date and Time	: 04-04-2018 at 11-15 Hours.
Place of Receiving & Opening	: Dhaka City Office, Bangladesh Cable Shilpa Limited, Nilkhet Telephone Exchange Building (1st Floor), Dhaka.

Cost of Tender Documents : Tk. 2,000.00 (Two thousand) per set (non-refundable).

N.B: IN CASE OF ANY HOLIDAY DECLARED BY THE GOVT. OR ANY UNAVOIDABLE CIRCUMSTANCES THE TENDER WILL BE RECEIVED & OPENED ON NEXT WORKING DAY AS PER SCHEDULE TIME AS MENTIONED ABOVE.

BANGLADESH CABLE SHILPA LIMITED,
SHIROMONI INDUSTRIAL AREA,
KHULNA - 9206,
FAX NO. 880-41-785375
E-MAIL: dmpurbcs1702@gmail.com
WEBSITE: www.bcs1.gov.bd



Bangladesh Cable Shilpa Limited, Khulna. Invitation for Tender (IFT)

1	Ministry/Division	Ministry of Posts, Telecommunications & Information Technology			
2	Procuring Entity Name	Bangladesh Cable Shilpa Ltd.			
3	Procuring Entity District	Khulna			
4	Invitation for	Procurement of Raw Materials for Manufacturing of Optical Fiber Cables (OFC), Copper Cable and HDPE Duct Pipes.			
5	Tender Invitation Ref. No.	14.37.0000.702.07.262.18.605			
6	Date	01-03-2018.			
KEY INFORMATION					
7	Procurement Method	Open Tendering Method with International Competition			
FUNDING INFORMATION					
8	Budget and Source of Funds	BCSL's Own Fund			
PARTICULAR INFORMATION					
9	Tender Publication Date	Within 04-03-2018			
10	Tender Last Selling Date	03-04-2018 till 16:30 hours			
		Date	Time		
11	Tender Closing Date and Time	04-04-2018	11:00 hours.		
12	Tender Opening Date and Time	04-04-2018	11:15 hours.		
13	Name & Address of the office(s)	Address			
	Selling Tender Document	Office of the Liaison Officer, Dhaka City Office, Bangladesh Cable Shilpa Limited, Nilkhet Telephone Exchange Building (1 st Floor), Dhaka-1205, Phone No-02-9615501. Cash Section, Accounts Dept., Bangladesh Cable Shilpa Ltd., Shiromoni Industrial Area, Khulna. Telephone No. 041-785803, 785236 Ext. 206			
	Receiving Tender Document	Office of the Liaison Officer, Dhaka City Office, Bangladesh Cable Shilpa Limited, Nilkhet Telephone Exchange Building (1 st Floor), Dhaka-1205, Phone No-02-9615501.			
	Opening -Tender Document	Office of the Liaison Officer, Dhaka City Office, Bangladesh Cable Shilpa Limited, Nilkhet Telephone Exchange Building (1 st Floor), Dhaka-1205, Phone No-02-9615501.			
INFORMATION FOR TENDERER					
14	Eligibility of Tenderer	Tenderer from all countries of the world except Israel. Tenderer / Supplier shall have minimum 5 years supply experience in Telecommunication Cable Manufacturing Factories/ Equipments and in the relevant fields around the world.			
15	Brief Description of Goods	Please see serial No. 17 below:			
16	Price of Tender Document	Taka 2,000.00 (Two thousand) only per set (Non Refundable).			
	Lot No.	Identification of Lot	Location	Quantity	Fixed Tender Security.
	Raw Materials for Optical Fiber Cable:				
	1	Coloured Optic Fiber (Single Mode G652D)-Different Colours	Khulna	25000 KM	USD 4,000.00
	2	PBT Granules for Loose Tube, Natural Colour	Khulna	20 M. Ton	USD 600.00
	3	Fiber Reinforced Plastic (FRP) Rod (Different Sizes) for OFC	Khulna	1500 KM	USD 300.00
	4	Tube Lessening Jel (Thixotropic) for OFC	Khulna	6 M. Ton	USD 250.00
	5	OFC Core Filling Compound (Flooding Compound)	Khulna	8 M. Ton	USD 250.00
	6	Polyester Binder Yam (222 tex) for OFC	Khulna	1 M. Ton	USD 100.00
	7	Water Blocking Tape: Different Size For OFC	Khulna	7 M. Ton	USD 450.00
	8	Polyester Foil for OFC (Different Sizes)	Khulna	5 M. Ton	USD 250.00
	9	Co-polymer Coated Aluminium Foil , Slitted Size	Khulna	10 M. Ton	USD 450.00
	10	Co-polymer Coated Steel Tape , Slitted Size	Khulna	65 M. Ton	USD 1,500.00
	11	Black Polyethylene (MDPE) for Outer Jacket for OFC	Khulna	100 M. Ton	USD 2,100.00
	12	Galvanized Steel Wire Rope (7 X 0.8 mm and 7 X 0.9 mm)	Khulna	30 M. Ton	USD 1,000.00
	Raw Materials for HDPE Duct Pipes:				
	13	HDPE-RT, Natural Colour (Pipe Grade)	Khulna	150 M. Ton	USD 3,100.00
	Raw Materials for Copper Cable:				
	14	HDPE for Wire Insulation, Natural Colour	Khulna	10 M. Ton	USD 350.00
	15	Petroleum Jelly (Cable Grade)	Khulna	10 M. Ton	USD 350.00
	16	Polypropylene Polital Foil (Different Colour & Sizes)	Khulna	2 M. Ton	USD 250.00
	All the Raw Materials should be supplied within 45 days from the date of purchase order.				
PROCURING ENTITY DETAILS					
18	Name of Official Inviting Tender	Md. Alauddin Al Azad			
19	Designation of Official Inviting Tender	General Manager (Purchase & Marketing)			
20	Address of Official Inviting Tender	Bangladesh Cable Shilpa Ltd., Shiromoni Industrial Area, Khulna-9206. Phone No. 0088-041-785150, 01711402002, 785236 Ext. 221, Fax No. 0088-041-785375.			
21	Contact details of Official Inviting Tender	Foreign Purchase Section, Bangladesh Cable Shilpa Ltd., Shiromoni Industrial Area, Khulna. Phone no. 0088-041-785150, 01711402002,785236 Ext. 221, Fax no. 0088-041-785375. Please visit our website at www.bcsl.gov.bd & CPTU Web Site: www.cptu.gov.bd & E-mail: dmpurbcs1702@gmail.com.			
22	The procuring entity reserves the right to accept or reject any or all tenders without assigning any reason whatsoever.				

(Signature)

(Md. Alauddin Al Azad)

General Manager (Purchase & Marketing)
Bangladesh Cable Shilpa Limited, Khulna-9206, Bangladesh

FORM OF ACKNOWLEDGEMENT

Bangladesh Cable Shilpa Limited,
Shiromoni Industrial Area,
P.O. Sonali Jute Mills Limited,
Khulna-9206, Bangladesh

Subject: Participation in International Tender No. **14.37.0000.702.07.262.18.619**
date **04-03-2018** due to for opening on **04-04-2018**.

We,.....Principal supplier
M/s.....
Manufacturer M/s.....
hereby, offer for supply the material in conformity with the specifications as
enumerated in **Annexure-I**. We confirm to bid for the designated item(s) at the firm
price quoted in full compliance with the terms and conditions of the attached tender
documents.

A tender security in the form of Bank Guarantee/Demand Draft/Pay Order of an
amount of Tk. only or equivalent US\$/EURO/ pound sterling shall be
enclosed herewith .

Very truly yours

Date:

Signature of the Tenderer/bidder
Including title and capacity

(To be filled up and signed by the Manufacturer on their letterhead pad)

TO WHOM IT MAY CONCERN

POWER OF ATTORNEY / AUTHORISATION LETTER

SUBJECT: Tender No.

Date:

For Supply of

Dear Sir,

We, the undersigned, M/s. (Name and address).....,

.....,
being the manufacturer of (Name of Raw-Material)
do hereby appoint M/s. (Name and address of the
supplier /tenderer) as our authorized
representative for submitting bid(s) against the above mentioned tender invited by
the Bangladesh Cable Shilpa Ltd., Khulna, Bangladesh.

We also hereby authorize the said representative to supply our goods, submit all
documents related to the tender, negotiate and do necessary formalities with your
authority as and when required and sign the contract for and on our behalf.

Very truly yours,

.....

Signature:

Name:

Designation:

(To be filled up and signed by the Supplier/Tenderer on their letterhead pad)

TO WHOM IT MAY CONCERN

POWER OF ATTORNEY / AUTHORIZATION LETTER

SUBJECT: Tender No.

Date:

For Supply of

Dear Sir,

We, the undersigned, M/s.

.....

..... (Name and address of the Supplier/Tenderer) being the Supplier/Tenderer of (Name of Raw-Material) do hereby appoint

M/s.....

..... (Name and address of the local agent in Bangladesh) as our authorized representative for submitting bid(s) against the above mentioned tender invited by the Bangladesh Cable Shilpa Ltd., Khulna, Bangladesh.

We also hereby authorize the said representative to supply our goods, submit all documents related to the tender, negotiate and do necessary formalities with your authority as and when required and sign the contract for and on our behalf.

Very truly yours,

.....

Signature:

Name:

Designation:

ABSTRACT OF OFFER

(This has to be filled up by the supplier in duplicate. If any points remains blank and not properly answered and words such as “As per Tender” are written the offer shall be treated as incomplete and may be rejected. Replies must be supported by proper documents from the Principal.)

1. Points must be included in offer:

- i) Name of the Principal/Supplier with complete address :
- ii) Name and address of the manufacturer with the original certificate confirming the supply as per tender document :

SI No.	Particulars	Price and related information
1	Name of Raw Material	
2	Quantity Offered	
3	FOB Price	
4	Freight	
5	Discount (if any)	
6	C&F/CFR/CPT Price (3 + 4 -5)	
7	Port of shipment	
8	Port of Destination	
9	Country Of Origin	
10	Offer Validity	
11	Period of shipment	

- iii) Tenderer's original proforma invoice shall be enclosed with offer. Invoice number and date are to be stated. :
- iv) Certificate from the principal authorizing the local agent, if any, to participate in the tender shall be enclosed. Certificate number and date are to be stated. :
- v) Certificate from the Manufacturer authorizing the principal/supplier, if any, to supply the raw materials as per tender specification shall be enclosed. Certificate number and date are to be stated. :
- vi) Whether Material Specification Confirmation Form (MSCF) is filled by Manufacturer (**Annexure-IV**): :
- vii) Whether sample is submitted :

- viii) Tenderer shall have to submit tender security **(Annexure-II)** from any schedule bank of Bangladesh stating tender security No. and date :
- ix) Tenderer shall have to furnish 10% (Ten percent) performance security **(Annexure-III)** within 28(twenty eight) days from the date of receipt of Notification of Award. Confirmation of performance security is to be given :
- x) The tenderer shall state whether it is a Proprietorship/ Partnership firm/Limited company. :
- xi) Any other important points/features of the offer :
- xii) Certify that we have carefully gone through all instructions and terms of the tender document and accepted them in full. We (authorised person) have signed and sealed the necessary papers of the tender document. We enclosed herewith the following documents: :
 - a) Original receipt evidencing purchase of Tender Document :
 - b) Chief Controller of Importer & Exporter (CCI&E) registration as Indentor :
 - c) Registration with Bangladesh Bank as Indentor :
 - d) Membership Certificate from Bangladesh Indenting Agents' Association :
 - e) Trade License & VAT registration certificate :
 - f) TIN No and up to date Income Tax clearance certificate :

Signature and seal of the tenderer with official address
and telephone No/Fax No/ E-mail.

Date.....

INSTRUCTIONS, TERMS & CONDITIONS TO TENDERERS

1. These instructions are intended to serve as a guideline for preparation of tender/bid.

1.1 NOTE OF CAUTION:

- a) Tender/Bid is being invited hereunder in accordance with international competitive bidding procedure.
- b) **Tender/Bid containing any deviation from the instructions to tenderers and the stated contractual terms and conditions, specification and any addendum related thereof, may be treated non-responsive.**

2. CLARIFICATIONS, INSTRUCTIONS AND INFORMATION:

Any request for clarification of any additional information in connection with this tender or any aspects of the bid-documents must be submitted in writing well ahead of opening of the tender. If any additional information is needed, it will be furnished in writing to all prospective bidders by BCSL.

3. MODIFICATION OF TENDER DOCUMENT:

Any modification, correction or clarification of tender document or extension of time for tender closing will be issued in the form of any addendum which will become a part of the tender and shall be signed by the tenderer and enclosed with the tender. Failure to do so may disqualify the offer.

4. BIDDING INSTRUCTION:

- 4.1 **Open Tender Method with International Competition** will be strictly followed on invited tender.
- 4.2 Bidder shall be submitted tenders in triplicate (**one original + two duplicate copies**) in triple envelopes wherein the Original in one envelop and others two copies in another envelop, duly marking the envelopes as "ORIGINAL" and "COPY". These sealed envelopes will then be enclosed and sealed in one (1) single outer envelope.
- 4.3 The outer envelope shall be addressed to **the Managing Director, Bangladesh Cable Shilpa Ltd., BCS-City Office (Dhaka), Nilkhet Telephone Exchange Building (1st floor), Nilkhet, Dhaka, Bangladesh** and shall bear the tender enquiry number and the date and time of tender opening while the inner envelope shall indicate the name and full mailing address of the tenderer so as to enable the buyer to return the Late/delayed tender unopened.
- 4.4 If the outer envelope is not properly sealed and inscribed as instruction above the buyer shall assume no responsibility for misplacement or premature opening of the tender.

5. AMENDMENT TO TENDER DOCUMENTS:

- 5.1 At any time prior to deadline for submission of bids, the purchasers may for any reason, whether of its own initiative or in response to a clarification requested by prospective bidders, modify the tender document by the amendment (S).
- 5.2 The amendments will be notified in writing or by e-mail or by cable to all prospective bidders who have purchased tender documents and the same will be binding on them.

5.3 In order to allow the prospective bidders reasonable time to take the amendment into account in preparing their bids, the purchaser may at its sole discretion extend the deadline for submission of bids.

6. **PREPARATION AND SUBMISSION OF TENDER/BID :**

6.1 Tender/bid and all supporting documents should be written in **English** and be submitted in triplicate (one original and two copies) in a sealed envelope to the following address :-

**Managing Director,
Bangladesh Cable Shilpa Limited,
BCS City Office,
Nilkhet Telephone Exchange Building (1st Floor),
Dhaka-1205, Bangladesh.**

Tender number and opening date should be written on the envelope.

- 6.2 Tender/bid may be sent by post/courier service but care must be taken to ensure that it reaches buyer's office at stipulated date and time. Late submitted tender would be returned unopened.
- 6.3 Suppliers may also send the tenders to the concerned Head of Purchase & Marketing Department by mail so as to reach him on the date and time. The buyer for late receipt will accept no responsibility.
- 6.3 The suppliers/tenderers may quote in their own letter head but it is essential that the '**Abstract of Offer**' is also completed and returned to the buyer. If the same is not accordingly returned, **the tender/bid may not be considered.**
- 6.4 Tender/Bid should be based on C&F/CFR price; but FOB price and freight should be shown separately. Any increase in freight before shipment will be on the seller's account. The buyer has the option to place order either on FOB or on C&F basis. Buyer shall not pay any commission to seller's local agent.
- 6.5 The name of the manufacturer, principal, supplier and country/countries of origin with port of shipment proposed should invariably be mentioned in the offer. In case of multiple origins, at seller's option, the country of origin and port of shipment may be confirmed prior to issuing Notification of Award (NOA) or at the time of signing contract.
- 6.6 Tenderer must submit the original and signed proforma invoice of their Principal with the tender/bid. Fax offers may be considered provided signed copy of proforma invoice is received by the tender floating authority within **24(twenty four) hours** of opening of the tender.
- 6.7 If the bid is made by a firm or a corporation, it shall be signed by a person authorised to make the commitment on behalf of the firm or corporation. Bid signed by an agent is to be accompanied by an evidence of its authority to bid on behalf of its Principal.
- 6.8 Tenderer should submit a certificate with the offer to the effect that they have gone through the instructions and the conditions as enumerated in the tender document and have agreed with them in full. As a token of such acceptance each page of the tender document must be signed by the supplier with seal and returned accordingly. In case of disagreement on any point the same must be stated clearly in a separate sheet. Tenderer must give full and detailed specification of the item(s) they like to offer. **Expression like 'as per your specification' should be avoided.**
- 6.9 Foreign bidders must submit their bids through the local agent. The buyer will pay no commission to the local agent. Hence, the commission for local agent, if any mentioned in the offer, will not be taken into consideration for evaluation.

6.10 In case of foreign supplier submitting quotation directly, the supplier must submit proforma invoice along **with the confirmation in writing that they do not have any agent in Bangladesh** and that the price quoted in the invoice does not include any commission for anybody. However, price / trade discount if given will be considered for evaluation.

6.11 Quotation of material must be submitted on **the net weight (weight of the material only)** but not on **the gross weight**.

7. DOCUMENTS REQUIRED TO BE SUBMITTED ALONG WITH OFFER:

7.1 The tenderer/supplier/principal will have to submit the following documents:

- a. Abstract Form
- b. Proforma Invoice in the **original letterhead pad** duly signed and sealed by concerned person of the tenderer /supplier/principal.
- c. Experience certificate of the tenderer/principal and Manufacturer.
- d. Supply records of raw materials.
- e. Material Specification Confirmation Form (MSCF) filled by Manufacturer
- f. Certificate of valid ISO 9001: 2008, ISO 14001: 2004 and Occupational Health & Safety Management certification of Manufacturer.
- g. Quality certificate as per clause no. 25
- h. Guarantee and Warrantee as per clause no. 36.
- i. Catalogues/leaflets/brochures /illustrative literatures.
- j. Power of Attorney of the tenderer/principal on behalf of Local Agent.
- k. Power of Attorney of the Manufacturer on behalf of supplier/principal
- l. Form of Acknowledgement.

7.2 The local agent will have to submit the following documents:

- i. Original money receipt evidencing purchase of tender document.
- ii. Valid indenting registration certificate from Chief Controller of Import & Export (CCI&E),
- iii. Valid Trade Licence,
- iv. VAT registration certificate,
- v. Membership Certificate from Bangladesh Indenting Agents' Association,
- vi. Tax payer's Identification number (TIN)
- vii. Update Income Tax Payment Certificate.

7.3 If any bidder fails to supply above documents, its offer may be rejected.

8. EVALUATION OF THE BIDS:

8.1 After opening of the tender, every offer will be sent to Technical Sub-Committee (TSC) for technical evaluation. The following factors shall be considered and check during technical evaluation of the offer:

- i. The tenderer whether the sample is submitted as per tender terms and condition.
- ii. The tenderer whether experience certificate of the tenderer/principal and Manufacturer are submitted.
- iii. The tenderer whether Material Specification Confirmation Form (MSCF) filled by Manufacturer is submitted.
- iv. Whether the Laboratory test of submitted sample is found OK or not.
- v. Whether satisfactory result have been found using the sample in our machine (where applicable).

- vi. The tenderer whether the certificate of valid ISO 9001: 2008, ISO 14001: 2004 and Occupational Health & Safety Management certification of manufacturer are submitted.
 - vii. The tenderer whether Quality certificate is submitted as per clause no. 25
 - viii. The tenderer whether Guarantee and Warranty is submitted as per clause no. 36.
 - ix. The tenderer whether Catalogues/leaflets/brochures /illustrative literatures is submitted.
 - x. The tenderer whether supply records of raw materials are submitted.
- 8.2 After receiving the technical evaluation report from TSC, then only the technically responsive offer will be evaluated by Tender Evaluation Committee (TEC). Technically non-responsive offers will not be evaluated.
- 8.3 Technically responsive offers will be evaluated by Tender Evaluation Committee (TEC). The following factors shall be considered and checked during evaluation of the offer by Tender Evaluation Committee (TEC):
- i. The tenderer whether Abstract of Offer is submitted.
 - ii. The tenderer whether Tender Security is submitted as per tender terms and condition.
 - iii. The tenderer whether Power of Attorney of the tenderer/principal on behalf of Local Agent is submitted.
 - iv. The tenderer whether Power of Attorney of the Manufacturer on behalf of supplier/principal is submitted.
 - v. The tenderer whether Original money receipt evidencing purchase of tender document is submitted.
 - vi. The tenderer whether Form of Acknowledgement is submitted
 - vii. The local agent whether attested copies of their **valid indenting registration certificate from Chief Controller of Import & Export (CCI&E), Valid Trade Licence, VAT registration certificate from Customs Authority, Membership Certificate from Bangladesh Indenting Agents' Association, Tax payer's identification number (TIN) and up-to-dated income tax payment certificate** are submitted.
 - ix. Lowest Bid price.
- 8.4 For Assessment of the tenders, the quoted currencies will be converted into Bangladesh Taka **at the exchange rate prevailing on the date of the opening of the tender.**
- 8.5 Arithmetic error of the tender will be rectified on the following basis:
- If there is any discrepancy between the unit price and total price obtained by multiplication of the unit price and the quantity, the unit price shall prevail and the total price shall be corrected. If the tenderer does not accept the correction of the errors, **its tender will be rejected and tender security will be forfeited.** If there is a discrepancy in between words and figures, the amounts in words will prevail.
- 8.6 If there is a **tie for the lowest price**, the tenderer with the superior past performance with the BCSL shall be selected. If there is a tie for the lowest price and none of the tenderers has past performance with the BCSL, then the tenderer who has demonstrated in the documentation provided, a superior past performance with other procuring entities shall be selected.
9. **BID LANGUAGE:**
- The bids, all correspondences and documents shall be written in **English Language.**

10. **BID CURRENCIES:**

Quotation in US Dollar/Pound Sterling/EURO/B.Taka will be preferred. Offer received in currencies other than US Dollar shall be converted in US Dollar at the exchange rate prevailing on the date of the opening of the tender for tender evaluation.

11. **PRICE:**

- 11.1 The tenderer shall quote their price on C&F/CFR Mongla Sea-port/Chittagong Sea Port/Benapole Land Port, Bangladesh basis showing break-up of FOB & Freight separately. Freight shall be paid at actual against freight memo but not exceeding the amount shown in the bid. The purchaser shall have the right to accept or reject any offer not furnishing such break-up.
- 11.2 But **Quotation price in Mongla Sea Port, Bangladesh basis will be preferred.**
- 11.3 **The tenderer must quote their price for Coloured Optic Fiber basis on Hazrat Shajalal International Airport, Dhaka, Bangladesh basis only.**
- 11.4 The FOB price shall include the cost of seaworthy packing of international standard and shall be deemed to have included duties, taxes and levies imposed by the Government or its agencies of the exporting country.
- 11.5 No alternation of the unit price whatsoever shall be entertained during the validity or the period of enforceability of the order/contract.
- 11.6 If any bidder wants to give discount, then his discount must be included in Proforma Invoice.

12. **TENDER/ BID SECURITY:**

- 12.1 Tenderer shall submit fixed amount of tender security money in favour of the Bangladesh Cable Shilpa Ltd., Khulna along with the tender in the form of **Pay Order/ Bank Draft or unconditional Bank Guarantee** on non-judicial Stamp from any schedule Bank in Bangladesh valid for **90 (ninety) days from the date of the opening** of the tender. The fixed amount of the tender security money to be submitted for various Raw-Materials shall be as follows:

SI No.	Name of Raw-materials	Quantity	Fixed Tender Security.
Raw Materials for Optical fiber Cable:			
1	Coloured Optic Fiber (Single Mode G652D)-Different Colours	25000 KM	USD 4,000.00
2	PBT Granules for Loose Tube, Natural Colour	20 M. Ton	USD 600.00
3	UV Fiber Reinforced Plastic (FRP) Rod (Dia. 1.0 mm) for OFC	500 KM	USD 300.00
	UV Fiber Reinforced Plastic (FRP) Rod (Dia. 1.4 mm) for OFC	1000 KM	
4	Tube Lessening Jel (Thixotropic) for OFC	6 M. Ton	USD 250.00
5	OFC Core Filling Compound (Flooding Compound)	8 M. Ton	USD 250.00
6	Polyester Binder Yarn (222 tex) for OFC	1 M. Ton	USD 100.00
7	Water Blocking Tape: Different Size For OFC	7 M. Ton	USD 450.00
8	Polyester Foil for OFC (Different Sizes)	5 M. Ton	USD 250.00
9	Co-polymer Coated Aluminium Foil , Slitted Size	10 M. Ton	USD 450.00
10	Co-polymer Coated Steel Tape , Slitted Size	65 M. Ton	USD 1,500.00
11	Black Polyethylene (MDPE) for Outer Jacket for OFC	100 M. Ton	USD 2,100.00
12	Galvanized Steel Wire Rope (7 X 0.8 mm and 7 X 0.9 mm)	30 M. Ton	USD 1000.00
Raw Materials for HDPE Duct Pipes:			
13	HDPE-RT, Natural Colour (Pipe Grade)	150 M. Ton	USD 3,100.00
Raw Materials for Copper Cables:			
14	HDPE for Wire Insulation, Natural Colour	10 M. Ton	USD 350.00
15	Petroleum Jelly (Cable Grade)	10 M. Ton	USD 350.00
16	Polypropylene Polital Foil (Different Colour & Sizes)	2 M. Ton	USD 250.00

- 12.2 If any tenderer wants to submit tender security in the form of Bank Guarantee, the tenderer shall follow the **specimen** of the Bank Guarantee enclosed herewith this tender document in **Annexure–II**. **If the validity of Bank Guarantee is less than the asking time, the offer shall not be considered.**
- 12.3 The tender security so deposited will be liable to forfeiture if the tenderer fails to accept any order within the validity period of the offer. The tender security of the successful tenderer will be returned after the submission of the performance guarantee by the tenderer.
- 12.4 **Tender securities of the non-responsive Tenders shall be returned after the Evaluation Report has been approved by the Purchaser.**
- 12.5 **Tender securities of the responsive Tenderers shall be returned only after submission of the performance security and signing the contract agreement by the lowest responsive tenderer.**
- 12.6 If the tenderer submits a main offer and an alternative offer, the tender security submitted with the main offer would be considered as tender security of the alternative offer also.
- 12.7 **If any tenderer deviates from the above mentioned condition, its offer will be rejected.**

13. **VALIDITY OF THE OFFER:**

Price offer shall remain valid, firm and irrevocable for a minimum period of **60 (sixty days)** calendar days from the date of opening of the tender which may be extended for a further period if it is desired by the buyer.

14. **SPECIFICATION & SAMPLE:**

- 14.1 The tenderer shall quote the raw-material strictly complying with the technical specification specified in **Annexure–I** of this tender document. Any deviation from the tendered specification is to be mentioned in the offer with clarification.
- 14.2 Sample of the raw-material along with manufacturer's quality certificate and specification shall be reached to the **Managing Director, Bangladesh Cable Shilpa Ltd., Shiromoni Industrial Area, Khulna-9206** before/on opening of the tender and the tenderer must confirm in their offer as to whether sample is sent to BCSL's desired address as mentioned. Tenderer's authorised representative or tenderer's local agent shall release sample from the air port / land port and send it to the BCS-factory at their own cost.
- 14.3 **After opening date of tender, no sample will be accepted at any circumstances.**
- 14.4 In case of previous supply of same raw-material with satisfaction within last 5 (five) years, the tenderer / supplier does not require to submit sample but should indicate the reference of their previous supply or supplies in the offer. In case of supply of new grade material, submission of sample with technical specification is mandatory.
- 14.5 The tenderer whose supplied sample was found satisfactory but they have not supplied the raw material within last 02(two) years, that tenderer / supplier have to submit new fresh sample of raw material for participation in the tender. **Otherwise, their offer will be rejected.**

14.6 If any bidder fails to supply sample as per above terms, its offer will be rejected.

15. **TERMS & CONDITIONS FOR THE MATERIALS**

15.1 The offered Coloured Optical Fiber must comply with the ITU-T G.652.D recommendation and meet all the requirements mentioned in the specifications.

15.2 Tenderer / Supplier shall have **minimum 5 years supply experience** in Telecommunication Cable Manufacturing Factories and in the relevant fields around the world. Similarly, the manufacturer must have **minimum 5 (five) years of experience in manufacturing** of materials mentioned in the tender document.

15.3 The manufacturer of Coloured Optical Fiber and other materials must have **valid ISO 9001: 2008, ISO 14001: 2004 and Occupational Health & Safety Management certification**. Copy of certificates must be included in the offer.

15.4 The manufacturer must have in-house test facility for all types of test as required in the specification. The bidder must give details of the test facility of the manufacturing factory.

15.5 The bidder must mention the production capacity of materials-manufacturer in their offer.

15.6 The offered raw materials except coloured optical fiber must be used by cable manufacturing plant or fiber optic cable users in **minimum 5 (five) reputed cable manufacturers of which minimum 2(two)** should be outside their own countries. Bidder must include certificate of satisfactory performance of the material in the offer from **minimum 5 such users of which 2(two) must be from outside from the country of origin**.

15.7 **The manufacturer of coloured optical fiber must have supply record for more than 300,000 Km/year of optical fiber to different foreign and domestic cable manufacturer within last 5 years. Bidder must include the supply records which have been issued from minimum 3(three) cable manufacturers that are located outside of the country of that fiber manufacturer.**

15.8 **Manufacturer from all countries of the world except Israel is acceptable for lot no. 2 to lot no. 16. Manufacturer from Japan, USA, UK, France, Australia, Switzerland, Italy and Germany or equivalent are acceptable only for lot no. 1.**

15.9 Size and quantities (where necessary) will be fixed at the time of placing purchase order.

16. **TENDER EXPENSES:**

All expenses incurred in connection with preparation, submission and delivery will be at tenderer's accounts. No claim will be entertained for refund or reimbursement of such expenses.

17. **REVISION OF OFFERS:**

After opening of the tender, no change of unit price in the bid shall be entertained. Besides, if any bidder makes any complaint in writing stating that there is deviation in others bids and if such complaint is proved to be unfounded and false, the tender evaluation committee may recommend forfeiture of tender/bid security of the complainant and may also recommend black listing of the complainant firm in case their tender/bid security has already been returned.

18. **CAUSES OF NON-RESPONSIVENESS OF BID(S):**

The bid(s) will be treated as **non-responsive** at the discretion of the buyer for the following reasons / lapses:

- 18.1 If the schedule of price and specifications are not enclosed with the bid duly filled in, signed and sealed.
- 18.2. If the original **proforma invoice in original letter head pad of Supplier/Principal** is not submitted with the bid.
- 18.3 If tender/ bid security in proper form and in requisite amount is not submitted with the tender/bid.
- 18.4 If the amount and validity of tender/ bid security do not conform to the requirement of the tender inquiry.
- 18.5 If the original official money receipt evidencing purchase of tender documents is not furnished with the tender / bid.
- 18.6 If the tenderer / bidder makes any addition or alteration to his price, specification or any other terms and conditions of his tender / bid after opening of tender.
- 18.7 If each and every page of the tender document is not signed and sealed by the tenderer / bidder as a confirmation of their acceptance of the tender terms.
- 18.8 If the tender / bid is made on behalf of a firm of such a country with whom Bangladesh does not have any diplomatic relation.
- 18.9 If the sample of raw material as per mentioned in Annexure-I is not submitted before or on opening of the tender.
- 18.10 **If the tenderer/principal has supplied inferior quality of raw materials at earlier.**

19. **SPECIAL CONDITIONS:**

- 19.1 No conditional tender / bid shall be accepted, unless relevant to the nature of the item or its trade conventions and practices.
- 19.2 Third party documents including bill of lading are not acceptable.
- 19.3 Tender /bid shall be signed by a person who has authority to enter into contract with the purchaser. If it is detected afterwards that the person signing the bid or documents forming part of the contract had no authority to do so; the purchaser may, without prejudice and other civil and criminal remedies, cancel the contract, forfeit the tender/ bid security /performance security and hold the signatory liable for all costs and damages.
- 19.4 In case the supplier/contractor is from a third country i.e, other than-country of origin where from shipment will be made a certificate from the manufacturer will have to be submitted with the proforma invoice stating that the supplier/contractor secures order/contract against the tender enquiry under reference, they will manufacture the goods and execute the order contract on behalf of the supplier/contractor. In all other cases also, manufacturer's certificate as aforesaid shall be submitted together with the proforma invoice.
- 19.5 Local agent who desires to participate in the tender shall mention his **indenting registration number and Bangladesh Bank permission number supported with photocopies of documentary evidence issued by Chief Controller of Import and Export, Government of the People's Republic of Bangladesh and the Bangladesh Bank respectively. Bangladesh Bank permission would certify the eligibility of the agent to represent a**

particular Principal. Tenderer shall have to produce the originals if required by the buyer.

- 19.6 Schedule of price and specifications duly completed, signed and sealed shall form an integral part of the bid.
- 19.7 The Purchaser reserves the right to accept any item or group of items against this tender.
- 19.8 The tenderer/bidder must enclose with his bid the original money receipt evidencing purchase of tender document.

20. **TENDER COMPARISON:**

For comparison of tender the currency quoted by the tenderer / bidder shall be converted into Bangladesh Taka at the rate (official selling) prevails on the date of opening the tender in Bangladesh Bank or rate of any scheduled Bank as advised by Bangladesh Bank.

21. **NOTIFICATION OF AWARD (NOA):**

Immediately after receiving necessary approval from the appropriate authority, the purchaser shall award the contract to the successful bidder and issue a **Notification of Award (NOA)**. The notification of award shall be accepted in writing by the successful tenderer. Through the notification of award the successful bidder will be asked to submit their performance security/guarantee within the period stated in the bidding document and execute the contract immediately thereafter.

22. **PERFORMANCE SECURITY:**

- 22.1 The successful tenderer shall have to sign a bilateral contract with the BCSL for the goods to be supplied by them and submit an unconditional **Performance Guarantee (P.G)** on non-judicial Stamp at the rate of **10% (ten percent)** of the quoted C&F/CFR price in foreign currency as security money for satisfactory performance of supply of goods immediately **within 15 (fifteen) days from the date of receiving of the Notification of Award (NOA)** which should remain **valid for 6(six) months from the tentative date of shipment of the goods**. The successful tenderer shall submit the performance guarantee / security in accordance with the specimen enclosed herewith in **annexure-III**.
- 22.2 In the event of failure to supply the contracted/ordered material within the stipulated time or supply of defective material or unsatisfactory performance of material or shortage of supplied material, performance security shall be en-cashed and forfeited by the importer. If the claimed amount does not cover by the performance guarantee, the supplier must return the balance of the claimed amount within 1(one) month time.
- 22.3 If the supplier fails to sign the contract and submit the performance security **within maximum 28 (twenty eight) days from the date of receiving of the Notification of Award (NOA)**, the tender security money submitted earlier with the tender documents shall be en-cashed and be forfeited by the purchaser/Importer.
- 22.4 On receipt of 10% (ten percent) P.S. and after signing bilateral agreement, an irrevocable L/C will be opened.

23. **CONTRACT:**

The terms & conditions of the tender document shall form an integral PART OF THE CONTRACT/Purchase order document. The tenderer is requested to check this tender document in order to ensure proper compliance and the 'Form of

Acknowledgement' along with the abstract of offer shall duly be filled in by the tenderer and shall be returned to the purchaser.

24. **INCREASE OR DECREASE IN QUANTITY OF CONTRACT:**

- 24.1 The buyer's reserves the right to increase or decrease the tendered quantity upto **20%** at the time of giving award of contract at the quoted unit price. The buyer also reserves the right to accept or reject any or all the tenders or to waive any informality, minor deviation or omission.
- 24.2 Award would be made to the bidder whose responsive bid determined to be the lowest evaluated bid and who meets the specification and other terms and conditions of the tender document.

25. **QUALITY CERTIFICATE:**

Tenderer shall furnish **guarantee from the Original Manufacturers** to the effect that the goods are of first party origin, first class workmanship and will be of exact specifications as laid down in the tender document (**Annexure-I**) and in the event of placing order to the tenderer, the manufacturer will supply raw materials to the tenderer against the tender. Tenderer, for all purpose, shall be responsible for the act of omission and commission of Principal. The tenderer / bidder shall also guarantee the quality of raw material.

26. **PACKING AND MARKING:**

- 26.1 The tenderer shall ensure proper packing of the material for transportation by sea, road, etc. so as to prevent any loss or damage on arrival at its destination. **If the packing is found defective and causes damage of the materials, the proportionate cost for damaged materials would be realized from the supplier/Local Agent.** Packing instructions in detail has been incorporated in the specification sheet in **annexure-1**.
- 26.2 Each case/package must have the detailed packing list inside & the following information printed in BOLD LETTERS on the outside:
- i) Name of the consignee and destination.
 - ii) Letter of Credit number.
 - iii) Gross and net weight.
 - iv) Brief Description of the machineries & equipment
 - v) Serial number of package and
 - vi) Name and address of the supplier.

27. **INSURANCE:**

Insurance will be arranged by the buyer against their marine policy with M/s. Sadharan Bima Corporation, Bangladesh. The supplier will send the clearing particulars of the consignment, the name of the carrying vessel its' sailing date, port of shipment, number of bill of lading and quantity and value of raw materials to the buyer as well as to the Sadharan Bima Corporation by Fax/E-mail advice. All documents related to insurance shall be sent by international courier service.

28. **TAXES AND OTHER CHARGES:**

All duties, taxes and other charges levied on raw materials by authorities in buyer's country shall be borne by the buyer and shall not be included in the bid price. Charges of such

nature in seller's country or in any country other than the buyer's country shall be borne by the supplier.

29. **TERMS OF PAYMENT:**

29.1 Generally an irrevocable Letter of Credit (L/C) shall be Opened/Established by the importer in favour of the supplier for payment. 100% payment at sight will be made on presentation of the clean set of original shipping documents strictly complying with L/C terms to the negotiating bank within 21 days from date of shipment i.e. from B/L date/Consignment Note date (15 days from the date of AWB) provided no discrepancy shall exist in the shipping document.

29.2 If it is necessary to the purchaser that the raw material needs to procure within shortest possible time, then the importer/purchaser may open a conditional L/C wherein the condition **“Payment will be effective subject to submission of Performance Guarantee(PG) to the applicant (the importer)”** will be mentioned. After submission of PG, the importer will send a letter to withdraw the condition and 100% payment at sight will be made on presentation of the clean set of original shipping documents.

29.3 Expenses, if any required in connection with amendment of L/C for adding further confirmation, or for extension of shipment validity or for allowing partial shipment on supplier's request, shall be borne by the supplier / supplier's local agent.

29.4 In case, extension of shipment validity in L/C is required to be made at the request of supplier / local agent, the validity of performance security should also be extended by the supplier **to cover 6 (six) months time from the extended date of shipment validity and the costs thereof for such amendment in L/C will be borne by the supplier/ local agent.**

29.5 As soon as shipment is made, the supplier shall send the following shipping documents to BCSL so as to reach BCSL well ahead of time of the consignment reaches destination.

- i) 5(five) copies of Invoice including original.
- ii) 3(three) copies of Bill of lading including original.
- iii) 4(four) copies of Quality Certificate of material.
- iv) 4(four) copies of Certificate of Origin from the chamber of commerce/competent authority.
- v) 5(five) copies of Packing list showing net weight and gross weight of each package.
- vi) 1(one) copy of Bill of Exchange.
- vii) 2(two) copies of insurance advice to the insurer.
- viii) 2(two) copies of shipping notice to the Importer.

29.6 Bank charges in the event of withdrawal of letter of credit established by the buyer shall be borne by the beneficiary.

30. **PARTIAL SHIPMENT:**

30.1 Generally partial shipment will not be allowed.

30.2 **In case of necessity of purchaser, new supplier of raw material in BCSL, new grade of raw material etc., the purchaser may issue a letter to get confirmation to deliver the raw materials in partially as per requirement of purchaser. In that case, the supplier/principal must be agreed to deliver the raw materials in partially for the interest of BCSL. Otherwise, the submitted tender security will be forfeited.**

31. **DELIVERY PERIOD:**

Raw materials have to be shipped as per prevailing rules of Bangladesh. All the tendered raw-materials need to be shipped within **45 (Forty five) days from the date of purchase order**. Early shipment will be appreciated.

32. **SHIPPING DOCUMENTS :**

32.1 Notice of shipment shall be made by fax/ e-mail to:

a) Managing Director,
Bangladesh Cable Shilpa Limited,
Shiromoni Industrial Area,
P.O. Sonali Jute Mills Ltd.,
Khulna-9206, Bangladesh.
Fax No-.0088-041-785375
E-mail: mdbcs@btcl.net.bd /
dmpurbcs1702@gmail.com

b) M/s. Sadharan Bima Corporation,
23/24, K.D.A. Commercial Area,
Khulna-9100, Bangladesh.

32.2 Notice of shipment shall contain the following:-

- a) Contract Number.
- b) Description of item(s).
- c) Total quantity of Item(s) shipped and value thereof.
- d) Name of vessel.
- e) Bill of Lading number and date.
- f) Port of loading.
- g) Date of shipment.
- h) Estimated time of arrival of ship.
- i) Whether it is part shipment.

32.3 Upon shipment, the seller shall supply the following advance copies of the documents directly by international courier service/E-mail: dmpurbcs1702@gmail.com to the buyer with a copy to the insurance company

- i. 6 (six) copies of Invoice.
- ii. 6(six) copies Bill of lading.
- iii. 2(two) copies of Quality Certificate of material.
- iv. 2(two) copies of Certificate of Origin from chamber of commerce/competent authority.
- v. 6(six) copies of Packing list.

33. **TERMS OF DELIVERY:**

33.1 The raw materials shall be shipped on C&F/CFR/CPT basis. Lighterage, if any, will be on seller's account and liability.

33.2 For transportation of raw materials preference must be given for shipment by Bangladesh Flag Vessel.

33.3 **The Free Detention period of shipping company at Destination Port must be at least 14(fourteen) days.**

34. **SURVEY AND INSPECTION:**

34.1 Pre-shipment inspection may be carried out by the BCSL or by the BCSL's authorised "Inspection Agency" at purchaser's cost. But the seller shall provide all sorts of facilities for conducting the inspection work at its factory premises and cost in this regard shall be borne by the bidder / seller.

34.2 The survey and inspection works at BCSL factory premises shall be jointly carried out by the importer/ importer's C&F agent, supplier's representative (if available) and importer's appointed surveyor to verify and ensure the extent of short supply or damage etc. of the material and if short/defective/damaged delivery is found, the same shall be replaced by the supplier at its own cost or the cost of such goods will be deducted from the performance Guarantee/security deposited by the supplier / supplier's local agent. If the claimed amount does not cover by the performance guarantee, the supplier must return the balance of the claimed amount within 1(one) month time.

35. **BREACH OF CONTRACT:**

On any breach of contract by the supplier, the buyer shall have the right to recover the actual loss suffered and the amount may be realised by encashing the performance security. When performance security (PS) will not cover the loss, the balance amount will be claimed upon the seller for payment.

36. **GUARANTEE & WARRANTY:**

36.1 The supplier warrants that the goods to be supplied under this contract shall comply with the BCSL tender-specification. The supplier further warrants that all goods to be supplied under this contract shall have no defect arising from materials or from any act of omission of the supplier, that may develop on the supplied goods under normal use in the conditions prevailing in the country of final destination.

36.2 This warranty shall remain valid for 12 (twelve) months after the goods are delivered to and accepted at the final destination.

36.3 In case, the materials supplied under this contract, does not comply with the BCSL tender-specification or is found unsatisfactory in performance, the supplier must replace the full quantity of goods within 3(three) months or return the full payment within 1(one) month.

37. **LIQUIDATED DAMAGE:**

37.1 Liquidated damage equivalent to half percent per week or part thereof on the value of the undelivered goods may be realised from the supplier/contractor.

37.2 In specific cases where delay in delivery is likely to cause dislocation of work and financial loss, a higher rate of liquidated damage not over 1 %(one percent) up to 3(three) months delay and 1/2% (half percent) for the period beyond 3(three) months of delay per week or part thereof on the value of the goods may be charged.

37.3 In case of delay in delivery beyond one hundred calendar days for importable item(s), purchase order/contract may be cancelled in which case the performance security shall be en-cashed and forfeited.

37.4 On genuine reasons/grounds beyond the control of the suppliers/ contractor, extension of delivery period may, however, be granted without realization of any liquidated damage provided validity of their performance security covers such extension.

38. **GENUINENESS OF THE PRINCIPAL SUPPLIER:**

The principal supplier shall have to submit a certificate from the supplier's Bankers regarding its standing the bonafide and standing of the suppliers.

AND / OR

Certificate from the chamber of commerce and Industry from the supplier's country regarding its standing as an exporter/manufacturer alongwith the proforma invoice.

39. **DEMURRAGE:**

If the consignment arrives at Benapole land port/Mongla Sea port / Chittagong Sea port before reaching the connected original shipping documents, demurrage from the arrival date of consignment at the port warehouse for non receipt of shipping documents will be borne by the supplier/local agent.

40. **FORCE MAJEURE:**

Should the supply of the stores be delayed for causes such as labour strike, factory closure, fire, dock strike etc. beyond the reasonable control of the supplier 'to be termed as "FORCE MAJEURE". This should be supported by documentary evidence from appropriate authorities. If a Force Majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof.

41. **ARBITRATION AND SETTLEMENT OF DISPUTES:**

In the event of any dispute arising out of the terms of this contract the parties undertake to make every effort to reach at an amicable settlement.

41.1 Except as otherwise provided in this contract, if any difference, dispute or question arising out of or with reference to this contract which cannot be settled amicably shall within 60(sixty) days from the date that either party informs them in writing that such difference, dispute or question exists be referred to arbitration of 03 (three) arbitrators.

41.2 Within 60(sixty) days of the said notice, one arbitrator shall be nominated in writing by BCSL and one arbitrator shall be nominated in writing by the tenderer / supplier. The third arbitrator who shall preferably be a retired Judge of one of the High Courts or the Supreme Court of Bangladesh shall be nominated by the two arbitrators before entering upon the reference within one month from the latest date of their respective appointments. The arbitration tribunal shall have its seat in Bangladesh.

41.3 The arbitration shall be conducted in accordance with the rules and procedures set forth in the Bangladesh Arbitration Act 1940 as subsequently amended. The award of the majority of the arbitrators shall be final and binding on both parties.

- 41.4 Each party shall bear the cost of its own arbitrator and the cost of the third arbitrator shall be borne equally by both parties.
- 41.5 In the event of an arbitrator resigning or becoming incapable or unable to act, the party nominating such arbitrator shall be entitled to appoint another in the place of the outgoing arbitrator, proceedings shall continue without recommencing as if such arbitrator had been originally nominated.
- 41.6 The court may on an application made to it, nominate an arbitrator for a party' who fails to do so.
- 41.7 If the two arbitrators cannot reach an agreement on the nomination of the third arbitrator, then the third arbitrator will be nominated by the, President of the International Chamber of Commerce.
42. **BANGLADESH CABLE SHILPA LIMITED IS NOT BOUND TO ACCEPT THE LOWEST TENDER / BID AND RESERVES THE RIGHT TO REJECT ANY OR ALL TENDERS WITHOUT ASSIGNING ANY REASON WHATSOEVER.**

(Md. Alauddin Al Azad)
General Manager (Purchase & Marketing)
Bangladesh Cable Shilpa Ltd., Khulna.

Technical Specification of Raw Materials

1. COLOURED OPTICAL FIBER (Single Mode G652D), Different Colours:

Characteristics:

Operation capacity over the full optical spectrum from 1260-1625nm, more usable wavelengths, increased transmission capacity, support of DWDM and CWDM, compatible with existing 1310nm equipment, good protection and excellent strip force stability, low splicing loss and high splicing efficiency.

Characteristics	Conditions	Specified Value	Units
Optical Characteristics			
Attenuation	1310 nm	≤0.34	[dB/Km]
	1383 nm	≤0.31	[dB/Km]
	1550 nm	≤0.20	[dB/Km]
	1625 nm	≤0.23	[dB/Km]
Attenuation vs. Wavelength	1285-1330 nm	≤0.03	[dB/Km]
Max. ∞ difference	1525-1575 nm	≤0.02	[dB/Km]
Chromatic Dispersion Co-efficient	1285-1340 nm	≥ -3.0 , ≤3.0	[ps/(nm-Km)]
	1550 nm	≤18	[ps/(nm-Km)]
	1625 nm	≤22	[ps/(nm-Km)]
Zero Dispersion wavelength		1312±10	[nm]
Zero dispersion slope		≤0.090	[ps/(mn ² -km)]
	Typical value	0.086	[ps/(mn ² -km)]
PMD	Maximum Individual Fibre	≤0.2	[ps/√km]
	Link Design Value (M=20,Q=0.01%)	≤0.1	[ps/√km]
	Typical value	0.04	[ps/√km]
Cable cutoff wavelength Acc		≤1260	[nm]
Mode field diameter (MFD)	1310 nm	9.2±0.4	[μm]
	1550 nm	10.4±0.5	[μm]
Effective group index of refraction (N _{eff})	1310 nm	1.466	
	1550 nm	1.467	
Point discontinuities	1310 nm	≤0.05	[dB]
	1550 nm	≤0.05	[dB]
Geometrical Characteristics			
Cladding diameter		124.8±0.7	[μm]
Cladding non-circularity		≤0.7	[%]
Coating diameter		245±5	[μm]
Coating-cladding concentricity error		≤12.0	[μm]
Coating non-circularity		≤6.0	[%]
Core-cladding concentricity error		≤0.5	[μm]
Curl (radius)		≥4	[m]
Delivery length		50.40	[km/reel]
Environmental Characteristics (1310 nm, 1550 nm & 1625 nm)			
Temperature dependence		≤0.05	[dB/km]
Induced attenuation at	- 60°C to +85°C		
Temperature-humidity cycling		≤0.05	[dB/km]
Induced attenuation at	- 10°C to +85°C, 98% RH		
Watersoak dependence		≤0.05	[dB/km]
Induced attenuation at	23°C, for 30 days		
Damp heat dependence		≤0.05	[dB/km]
Induced attenuation at	85°C and 85% RH, for 30 days		
Dry heat aging at	85°C	≤0.05	[dB/km]
Mechanical Specification			
Proof test	off line	≥9.0	[N]
		≥1.0	[%]
		≥100	[kpsi]
Macro-bend induced attenuation			
1 turn around a mandrel of 32 mm diameter	1550 nm	≤0.05	[dB]

100 turns around a mandrel of 50 mm diameter	1310 nm & 1550 nm	≤0.05	[dB]
100 turns around a mandrel of 60 mm diameter	1625 nm	≤0.05	[dB]
Coating strip force	typical average force	1.7	[N]
	peak force	≥1.3 ≤8.9	[N]
Dynamic stress corrosion susceptibility parameter n _d		≥20	

- The above fiber should colored with thickness of max-5 μm.
- 12 (twelve) colored optical fibers of above characteristics will be procured.
- Test Report of each spool/reel must be submitted with packing list.

Country of origin: Japan, USA, UK, France, Australia, Switzerland, Italy and Germany or equivalent.

H S Code: 9001.10.10

Packing: Standard Air-worthy packing should be made by supplier containing of **50.40 Km** coloured optic fiber per reel. Name of colour of fiber & fiber length per reel must be mentioned outside on each reel/bobbin.

Dimension of Plastic Reel/Bobbin:

- a) Flange diameter : 266.00 mm
- b) Barrel diameter : 170.0 mm
- c) Shaft hole diameter : 25.40 mm
- d) Outside Width : 176.80 mm
- e) Traverse Width : 150.00 mm

Sample: At least **10(ten) Kilometres Coloured Optical** fiber of no commercial value with detailed specifications & technical leaflets / brochure having extrusion temperature gradients and quality of the products from the manufacturer should be submitted **on or before the date of tender opening**. Also the tenderers must provide evidence of country of origin of the product.

2. PBT GRANULES FOR LOOSE TUBE (NATURAL COLOUR, Virgin Material):

Characteristics:

Good hydrolysis resistance, high melt strength, high flexural modulus with good kink resistance, excellent processing property, low coefficient of thermal expansion, low moisture absorption, good abrasion resistance, good crystallization property.

SI No.	PROPERTIES	TEST METHODS	Unit	Value	
1.	Specific Gravity	ASTM D 792	g/cm ³	1.31±0.02	
2.	Intrinsic Viscosity	Q/SHYH08.4411-2000	dl/g	1.30±0.02	
3.	Melt Index (250°C, 2.16kg)	ASTM D 1238	g/10min	10.0±2.0	
4.	Tensile Strength	ASTM D 638	Mpa	≥50	
5.	Elongation	ASTM D 638	%	≥100	
6.	Tensile Modulus	ASTM D 638	Mpa	≥2300	
7.	Flexural Modulus	ASTM D 790	Mpa	≥2300	
8.	Izod Impact (1/4", Notched, +23°C)	ASTM D 256	kg·cm/cm	≥5.0	
9.	- COOH content	Q/SHYH08.4412-2000	meq/Kg	≤25	
10.	Melt Temp.	Q/SHYH08.4416-2000	°C	220±10	
12.	HDT	ASTM D 648	°C	(1.8 Mpa)	≥55
				(0.45 Mpa)	≥170
13.	Coefficient of Linear Thermal Expansion (23°C ~ 80°C)	ASTM D 696	10 ⁻⁵ mm/mm/°C	11.0	

N. B. The material should be suitable enough to produce smooth surface of LOOSE TUBE at high speed (minimum 350 meter per minute).

Packing: The materials shall be supplied in "900 Kg moisture proof jumbo bags (Net Material)" on strong wooden pallet in containers and every 900 Kg bag will be wrapped by strong polyethylene of 3 or 4 layers with wooden pallet so that every big bag could be loaded / unloaded by Fork lifter and shall be of well exportable packing for safe transportation by ship to its destination. The material must be wrapped with polyethylene in the big bag to prevent the same from moisture. **Each Carton/Box/Pallets should be marked with length, Gross & Net weight.**

Sample: Sample (min. 25 Kg) of no commercial value with detailed specifications & technical leaflets / brochure having extrusion temperature gradients and quality of the products from the manufacturer should be submitted **on or before the date of tender opening**. Also the tenderers must provide evidence of country of origin of the product.

3. FIBER REINFORCED PLASTIC (FRP) Rod for OFC (Diameter: 1.0 & 1.4 mm):

Characteristics:

Insensitive to the lightning strike, suitable for the area with frequent lightning and rain, free from the induction interference, can be laid and installed close to the power line and device, no harmful gas, which will affect the transmission of the optical fiber, will be given off from the corrosive metal, FRP strength member has a high ratio of strength/weight.

Property	Values	Unit	Test method
Tensile strength	≥1500	MPa	ASTM D3916
Tensile modulus	≥50	GPa	ASTM D3916
Flexural strength	≥1500	MPa	YD/T 1181.1
Flexural modulus	≥50	GPa	YD/T 1181.1
Elongation at break	≤4	%	ASTM D3916
Coefficient of linear thermal expansion (-30 °C, -80°C)	<8*10 ⁻⁶	1/°C	ASTM D696
Diameter tolerance	±2%	mm	GB/T 2951.1
Minimum bending radius	25*D	mm	YD/T 1181.1
Density	2.05-2.15	g/cm ³	GB1463
High temperature bending test	No bur, cracks and break.	50D,100°C,120h	YD/T 1181.1
Colour	Cream/Ivory		

Meter Marking: FRP Rod should be marked with size and meter print by one meter interval.

Packing: The material shall be supplied in **50.2 km per Reel/Spool** standard, free from moisture, rain, water & weather-proof, suitable handling which will keep the material properties changed during transportation and facilitate loading/unloading by fork-lifter. If the packing is found defective and causes damage of the material, the proportionate cost for damaged material would be realized from the supplier. Each spool should be wrapped with polyethylene and place an pallet tie with steel tape. **Each Reel/Box/Pallets should be marked with length, Gross & Net weight.**

Spool dimension:

Flange diameter	=	850 mm
Over all width	=	630 mm
Traverse	=	570 mm
Inner Core diameter	=	82 mm (with steel Bush)
Driving hole diameter	=	40 mm (No of hole 3 around the radius)
Driving radius	=	140 mm

H S Code: 3916.90.10

Sample: Sample (5 km of 1.4 mm dia) of no commercial value with detailed specifications with technical leaflets / brochure having extrusion temperature gradients and quality of the products from the manufacturer should be submitted **on or before the date of tender opening**. Also the tenderers must provide evidence of country of origin of the product.

4. Tube Lessening Jel (THIXOTROPIC) for OFC:

Characteristics:

Excellent flexibility, lower viscosity, good performance at both low & high temperature, very low acid value and hydrogen escape etc.

Properties	Typical Value (LT-410)	Testing Method
Appearance	Colorless and lucent	Visual
(20°C) g/cm ³ density	0.80 to 0.90	GB/T2540-88
Dropping Point (°C)	>180	GB/T4929-91
Flash Point (°C)	>210	GB/T3536-91
Cone penetration @ 25°C, dmm	≥420	GB/T269-91
Cone penetration -40°C, dmm	≥260	
mg KOH/g acid value	0.005	GB/T2951.10-97.5
Water resistant	without discomposing	
% moisture content	<0.01	GB/T260-77
(25°C) MPa s viscosity	4500	enterprise standard
(80°C, 24h) ul/g hydrogen escape	0.0005	GB/T3393
(190°C) oxidation induction time	>60	GB/T2951.9-97.4
(130°C, 120h) color stability	0.1	GB/T6540-86
(80°C, 24h) oil separation	0	YD/T839.1-2000
(80°C, 24h) evaporation loss	0.06	YD/T839.1-2000

Packing: The material shall be supplied in new steel Barrels/Drums having two outside corrugation, each barrel/drum containing 170 Kgs of (net) to be loaded in container/track with 4(four) drum on wooden pallet. The height of the Barrels/drums will be within 875mm to 925 mm and inner diameter of the Barrels/drums will be 571±2mm. The weight of each empty new steel Barrel/drum shall be 18 Kgs. (min). The material shall be of well exportable packing for safe transportation by truck to its destination for loading/ unloading by Fork-lifter. If the packing is found defective and causes damage of the material, the proportionate cost for damaged material would be realised from the supplier.

H S Code: 2712.90.10

Sample: Sample (**min. 10 Kgs**) of no commercial value with detailed specifications with technical leaflets/brochure having extrusion temperature gradients and quality of the products from the manufacturer should be submitted **on or before the date of tender opening**. Also the tenderers must provide evidence of country of origin of the product.

5. OPTICAL FIBER CABLE CORE FILLING COMPOUND (FLOODING COMPOUND):

Suitable for cold pumping and processing, enabling cable filling without voids created by compound shrinkage

Characteristics:

SL No.	Property	Unit	Value	Test method
1	Working Temp. Range	°C	-40 to +80	
2	Melting Point	°C	102.2 ± 2	ASTM D127
3	Drop Point	°C	>200	ASTMD 566
4	Cone Penetration			
	(a) 25°C	Dmm	≥350	ASTMD-217
	(b) -30°C	Dmm	≥230	ASTMD-217
	(c) -40°C	Dmm	≥230	ASTMD-217
5	Viscosity at 120°C	Cst at 120°C	225	ASTM D445
6	Separation of Oil	at 50°C *24Hrs	PASS	IEC 538 B
7	Flash Point	°C	≥200	ASTMD 90

8	Total Acid Value	mg.KOH/g	0.02	IEC 538 B
9	Dielectric Constant	23°C, 1MHz	2.18	ASTM D150
10	Dissipation Factor	23°C, 1MHz	0.00095	ASTM D150
11	Volume Resistivity	100°C	5.2*10	ASTM D1169
12	Phase Separation (Oil Separation)	at 65°C *24Hrs at 80°C *24Hrs	PASS -	Funnel Method (JCS-PF-1009)
13	Drip Test (Flow Test)	at 55°C *24Hrs at 65°C *24Hrs at 80°C *24Hrs	PASS PASS PASS	REA PE 39 REA PE 39/89
14	Density	g/cm ³	0.80-0.90	ASTMD 1475
15	Colour Stability	@ 130°C /120hrs	<2.5	ASTMD 127
16	Oxidation OIT	@ 130°C(min)	≥30	ASTMD 3895

Packing: The material shall be supplied in new steel Barrels/Drums having two outside corrugation, each barrel/drum containing 170 Kgs of (net) to be loaded in container/track with 4(four) drum on wooden pallet. The height of the Barrels/drums will be within 875mm to 925 mm and inner diameter of the Barrels/drums will be 571±2mm. The weight of each empty new steel Barrel/drum shall be 18 Kgs. (min). The material shall be of well exportable packing for safe transportation by truck to its destination for loading/ unloading by Fork-lifter. If the packing is found defective and causes damage of the material, the proportionate cost for damaged material would be realised from the supplier.

Sample: Sample (**min. 10 Kgs**) of no commercial value with detailed specifications with technical leaflets/brochure having extrusion temperature gradients and quality of the products from the manufacturer should be **submitted on or before the date of tender opening**. Also the tenderers must provide evidence of country of origin of the product.

6. POLYESTER BINDER YARN FOR OPTICAL FIBER CABLE:

Characteristics (222tex for Optical Cable):

High tensile strength & elongation at break, shrinkage at high temperature, smooth surface, high quality and perfect in use for optical fiber cable core.

Properties.	Specified Value & Unit
Liner Density (tex)	222±5%
Color	White
Appearance	Dense, no looseness
Elongation at break (%)	≥ 20
Breaking Strength min(N)	≥ 100
Melting Point(C)	> 220
Heat Shrinkage at (180°C x 10 min)(%)	≤ 5
Tensile Strength after Thermalization (N)	≥ 65

Spool dimension: Reel diameter with yarn: 210 mm, Traverse length- 150-160 mm, inner Paper (slitted) core diameter – 94 mm & core length- 180-182 mm, Wall thickness of core-10 mm.

Packing: Standard packing should be used during delivery which will be suitable for loading/ unloading by fork-lifter or any other means.

Sample: 1(one) reel (2 Kgs) of no commercial value with detailed specifications with technical leaflets / brochure having extrusion temperature gradients and quality of the products from the manufacturer should be submitted **on or before the date of tender opening**. Also the tenderers must provide evidence of country of origin of the product.

7. WATER BLOCKING TAPE FOR OFC: (Non-Conductive Water Blocking Tape)

SL No.	PROPERTY	UNIT	VALUE	TEST METHOD
1.	Weight	g/m ²	90 ±10	
2.	Thickness	mm	0.25 ± 0.03	

3.	Tensile Strength	N/cm	≥35	
4.	Elongation	%	≥12	
5.	Swelling Speed	mm/1st.min	≥8	
6.	Swelling height	mm/3.min	≥12	
7.	Short term stability	°C	230	
8.	Long term stability	°C	90	
9.	Moisture content 21 °C 65%R.H	%	≤ 6	
10.	Size	mm	Within 10 to 55	

Packing: Most Secured and strong packing (Carton with Plastic bag) durable against rough handling during transportation shall be provided to ensure its being free from loss and damages on arrival at its destination. **Each Box/Cartoon/Pallets should be marked with width, Gross & Net weight.** If the packing is found defective and there by damage occurs to the material, the proportionate cost for the damaged material would be realized from you/your local agent.

Reel Dimension:

Inner dia of core (Paper)	:	78	mm
Outer dia of tape	:	450	mm
Wall thickness of Core	:	10	mm

H S Code: 5510.30.10

Sample: Sample (Size:30 mm, Length: min 200 meter) of no commercial value with detailed specifications & technical leaflets / brochure having extrusion temperature gradients and quality of the products from the manufacturer should be submitted **on or before the date of tender opening**. Also the tenderers must provide evidence of country of origin of the product.

8. POLYESTER FOIL (Different Sizes) FOR OFC:

Characteristics:

Wrapping telecommunication Jelly-filled cable cores to Polyester Foil should be suitable to longitudinally protect if from excessive heat during production process up to 200° C.

Properties.

Specified Value & Unit

Thickness	0.030 mm for ≤ 34 mm size and 0.036 mm for ≥ 35 mm size
Density	1.395 gm/cm ³
Tensile Strength	100 N/mm ² (min.)
Elongation at break	Min. 20%
Yield Point Elongation	Min. 4%
Melting Point	Min. 260°C
Max working temperature for few hours	200°C
Thermal Conductivity	1.1
Dielectric Strength	510 KV D.C. or 380 KV A.C. Per mm.
Dielectric Constant at 1 MHz	≤ 3.4

Sizes: Sizes & Individual quantities regarding thickness will be fixed at the time of placing purchase order. Detailed specifications with technical leaflets/brochure and quality certificate of the products should be submitted along with offer.

Reel Dimensions: Inner diameter of Paper Core/Rolls: 76 mm (Max.), outer diameter: 450 mm-500 mm, Wall thickness of Core:10 mm.

Packing : Moisture proof poly-shrunk wrapped of each reel inside cartoon/boxes placed on wooden-pallets or in wooden boxes with loading/unloading facilities by fork-lifter.

Sample : One roll of Polyester foil **about 300 meter length** of width 27 mm (0.030 mm) of no commercial value should be submitted **on or before the date of tender opening**. Also the tenderer must provide evidence of country of origin of the product.

9. COPOLYMER COATED ALUMINIUM FOIL, SLITTED SIZES FOR OFC:

Characteristics: Aluminium foil with co-polymerised lamination in both sides.

Quality:

- a) Both sides of co-polymerised Aluminium tape/foil must be smooth & light shining.
- b) Purity of Aluminium should be 99%.
- c) Both sides of the Aluminium foil must be laminated with Ethylene Acrylaure either copolymer or acrylaure-copolymer.
- d) The laminated must be evenly thick without any uncovered spots. Also the striking to the metal must be continuously of same amount.
- e) The peel strength of the copolymer film from the aluminium foil shall not be less than 6.5N per 25 mm width of the foil.

Dimension:

Thickness of uncovered Aluminium foil	:	0.150 mm.
Thickness of Copolymer (on each side)	:	0.050 mm.
Overall thickness	:	0.250 mm.
Reel outside diameter	:	900 mm (Max.)
Core inside diameter (Aluminium)	:	150±2 mm in aluminium cores with 3 mm wall thickness.
Length per reel up to 55 mm	:	2040 ±5 meter in single length.
Length per reel above 55 mm	:	1020±5 meter in single length.

PHYSICAL PROPERTIES

Tensile strength (MPa)	>	65
Elongation (%)	>	20
Peel strength (N/cm)	>	6.13
Heat seal strength (N/cm)	>	17.50

Sizes: Slitted: Quantity and Size will be fixed at the time of Purchase Order.

Packing: Aluminium foil reels are to be placed one after another eye to sky position with corrugated paper board separator on wooden-pallet giving sufficient cushions along with moisture proof poly-shrunk wrapping of 3 or 4 layers. Then plastic / steel tape strapping is to be provided with upper and lower wooden pallets and finally with poly-shrunk wrapping and wooden crates protection are to be provided to facilitate loading / unloading by fork-lifter. **Each coil should be marked with length, width & weight and each box/pallets should be marked with Gross & Net weight.**

Sample: One roll of Aluminium foil about **100 meter long** of width 27 mm, core dia. 150 mm of no commercial value with detail specification, Technical leaflets and quality certificate of the manufacturer should be submitted **on or before the date of tender opening**. Also the tenderers must provide evidence of country of origin of the product.

10. COPOLYMER COATED STEEL TAPE, SLITTED SIZES FOR OFC:

PRODUCT	:	Copolymer Coated Steel Tape
USAGE	:	Signal shield, armouring.
SCOPE	:	Both side 50 micron copolymer coated on steel tape

DIMENSIONS SPECIFICATION

Width	13 mm - 60 mm
Length	(2300 – 2500 m) +/- 10 m
Inner core	150 mm +/- 2mm (core will be made of steel ring)
Outer core	< 900 mm

CONSTRUCTION: COPOLYMER/STEEL/COPOLYMER

	THICKNESS micron	WEIGHT g/m ²
COPOLYMER (Green)	50 +/- 5	47.5 +/- 4.75
STEEL	120 +/- 5	900 +/- 37.50
COPOLYMER	50 +/- 5	47.5 +/- 4.75

PHYSICAL PROPERTIES

Tensile strength (MPa)	> 300
Elongation (%)	> 20
Peel strength (N/cm)	> 6.13
Heat seal strength (N/cm)	> 17.5

H S Code: 7212.40.91

Packing: Each steel tape reel should be steel tape strapping at minimum 3 or 4 positions to prevent displacement of tape from the reel. Steel tape reels are to be placed one after another eye to sky position with corrugated paper board separator on strong wooden-pallet giving sufficient cushions along with moisture proof poly-shrunk wrapping of 3 or 4 layers and finally with poly-shrunk wrapping and wooden crates protection are to be provided to facilitate loading / unloading by fork-lifter. **Each reel should be marked with width and length and each box/pallets should be marked with Gross & Net weight.**

Sample: 1(one) roll of Co-polymer coated steel tape about **50 meter long** of width 37 mm, Inner core dia. 150 mm of no commercial value with detailed specifications with technical leaflets/brochure having extrusion temperature gradients and quality of the products from the manufacturer should be submitted **on or before the date of tender opening**. Also the tenderers must provide evidence of country of origin of the product.

11. VIRGIN BLACK POLYETHYLENE GRANULES (MDPE) FOR OUTER JACKET FOR OFC:

MDPE Physical Properties			
S. No.	Property	Unit	Standard
1	Appearance	-	Even granular no impurity
2	Tensile Strength	MPa	≥ 30
3	Percentage of breaking-elongation	%	≥ 500.0
4	Density	g/cm ³	0.926 ~0.940
5	Melt flow rate 2.16 Kg – 190°C	g/10 min	0.5 – 0.75
6	Volume Resistance	Ω·m	1.0×10 ¹⁶
7	Melting temperature range	°C	180-220
8	Mould Temp. Range	°C	20-60
9	Mould Shirankage	%	3.5
10	ESCR (50°C, 10% Igepal) (FO = no crack)	h	≥ 5000
11	Oxidative induction period/200°C	min	≥30.0
12	Carbon black content	%	2.60±0.25
13	Carbon black dispersion Grading Appearance	-	2 A2
14	Dielectric strength	KV/mm	≥ 20
15	DC Resistivity	Ω·cm	10 ⁶

N. B. The material should be suitable enough to produce smooth surface of cable sheathing at high speed (minimum 75 meter per minute).

Packing: The material would be supplied in **650 Kg paper Carton/box with inside PE liner on wooden pallet** in containers to avoid materials losses in transit. Other Sea worthy & moisture barrier packing (to be mentioned clearly) may be allowed.

H S Code: 3901.20.10

Sample: Sample (**min. 25.Kgs**) of no commercial value with detailed specifications with technical leaflets / brochure having extrusion temperature gradients and quality of the products from the manufacturer should be submitted **on or before the date of tender opening**. Also the tenderers must provide evidence of country of origin of the product.

12. GALVANIZED STEEL WIRE ROPE (WITHOUT BITUMEN COATED):

Tension free steel wire rope to be used for figure-8 /Aerial Cables

Size: 7 X 0.9 mm and 7 X 0.8 mm

Lay Factor: Between 12-16 times the outside diameter.

Lax direction: Left hand direction.

Tensile Strength: Min. 160 Kgs/mm²

Surface: Zinc coated but without bitumen coated.

Steel wire is to be zinc coated with minimum 0.01 mm thickness.

Packing: Galvanized Steel Wire Rope is to be tied **12.50 KM** on strong wooden Drum with steel Bush of 82 mm Inner Core diameter on strong wooden- pallet giving sufficient cushions along with moisture proof poly- shrunk wrapping of 3/4 layers to facilitate loading/unloading by fork-lifter.

Marking: Total weight and length will be marked on drum.

Reel/Drum Size:

Flange diameter = 800 mm

Traverse Length = 380 mm (nominal)

Barrel diameter = Standard Size

Inner Core diameter = 82 mm (Steel bush)

Driving hole diameter = 40 mm (3 Nos. of hole around the radius in both side).

Sample: 10 meter (size: 7 X 0.9 mm) sample of no commercial value with detailed specifications, technical leaflets / brochure and quality certificate of the products from the manufacturer should be submitted **on or before the date of tender opening**. Also the tenderers must provide evidence of country of origin of the product.

13. VIRGIN HDPE-RT, NATURAL COLOUR (PIPE GRADE):

HDPE-RT is a natural, bimodal HDPE for applications at raised temperature, with excellent process ability for high speed extrusion lines with excellent output. It is used for manufacturing of flexible pipes in domestic and industrial application.

Product Data Sheet:

Sl. No.	Property	Unit	Value	Test method
1	Density (compound)	g/cm ³	0.944	ISO 1183-1 Method A
2	Melt flow Index @ 190°C, 5 Kg	g/10 min	0.8	ISO 1133
3	Tensile Modulus (1 mm/min)	Mpa	800	ISO 527-2
4	Tensile Strain at Break (50 mm /min)	%	> 800	ISO 527-2

5	Tensile Stress at Yield (50 mm /min)	Mpa	22	ISO 527-2
6	Tensile Stress at Break (50 mm/min)	Mpa	30	ISO 527-2
7	Oxidation Induction Time (210 °C)	minutes	≥ 20	ISO 11357-6
8	Colour	-	Natural	-
9	Application	-	HDPE Silicon Core Duct	-

Packing: Most secured sea worthy and strong packing durable rough handling on the way. The ram materials shall be supplied in "**650 Kgs Jumbo bags (Net Material) on strong wooden pallet and Jumbo bags will be wrapped by strong polyethylene od 3 or 4 layer with wooden pallet**" so that every jumbo bag could be loaded/unloaded by fork lifter and shall be of well exportable packing for safe transportation by ship to its destination. If the packing is found defective and causes for damage of the raw materials, the proportionate cost for damaged materials would be realized from the supplier/local agent.

Sample: Sample (**min. 25 Kgs bags**) of no commercial value with detailed specifications with technical leaflets / brochure having extrusion temperature gradients and quality of the products from the manufacturer should be submitted **on or before the date of tender opening**. Also the tenderers must provide evidence of country of origin of the product.

14. POLYETHYLENE GRANULES (HDPE) FOR WIRE INSULATION, NATURAL COLOUR:

Polyethylene Granules (Natural Colour) with high-molecular weight, high density polyethylene insulation compound suitable for the production of thin skin insulation of telephone wires at very high speed in double extruder machine. The material must have good resistance to Petroleum jelly since it will be used for the production of petroleum jelly filled telephone cables.

Properties	Specified Value & Unit	Testing method
Melt flow Index	0.7 - 0.8 gm/10 min.	ASTM-D-1238
Density at 23oC	0.941 - 0.950 gm/cm ³	ASTM-D-792
Low Temperature Brittleness (-76oC)	Max. 2 out of 10	ASTM-D-746
Tensile Strength	Min. 190 Kg/sq. cm.	ASTM-D-638
Elongation at break	Min. 500 %	ASTM-D-638
Increase of mass due to absorption of Petro jelly	Max. 10 %	-
Dissipation factor at 106Hz	0.0005	ASTM-D-1531
Dielectric constant at 106Hz	2.3 (max)	"
Volume Resistivity	> 1X10 ¹⁵ Ohm.cm.	ASTM-D-257
Environmental crack test, hours	Not less than 48 hours. No failure out of 10 specimens.	ASTM-D-1693
Colour	Natural.	
Grade	HDPE for high speed extrusion	

Packing: The material would be supplied in 500 Kg Carton/box with inside PE liner on wooden pallet in containers to avoid materials losses in transit. Other Sea worthy & moisture barrier packing (to be mentioned clearly) may be allowed.

Sample: Sample (min. 25.Kgs) of no commercial value with detailed specifications with technical leaflets / brochure having extrusion temperature gradients and quality of the products from the manufacturer should be submitted **on or before the date of tender opening**. Also the tenderers must provide evidence of country of origin of the product.

15. PETROLEUM JELLY (CABLE GRADE):

Characteristic:

- The filling compound shall be compatible with HDPE insulation and all other cable compounds. It shall be of such consistency that its handling characteristics are tolerable.
- The filling compound shall be non-toxic, non-acidic and non-corrosive.

- c) The filling compound shall be free from dirt, metallic particles and other foreign materials.
d) The filling compound shall be homogeneous.

Properties	Test method	Specified Value & Unit
Melting Point	ASTM-D127	90±2 °C
Drop Melting Point	ASTM-D566	90°C (min.)
Cone Penetration @ 25°C (min.)	ASTM-D937	50 X 1/10 mm.
Kinematic Viscosity @ 120°C.	ASTM-D445	50 ± 5 cst.
Volume Resistivity at 100°C.	ASTM-D1169	1X10 ¹² Ohm/cm ³ (min).
Volume Resistivity at 20°C.	"	1 X 10 ¹⁶ Ohm/cm ³ (min).
Dielectric constant at 23°C, 1MHz	ASTM-D150	2.3 (max).
Flash Point	ASTM-D92	220°C (min.)
Colour	ASTM-D1500	Colourless / light yellow/light brown.

Packing: In thick and new steel drum of inner dia. 571±2 mm & height 875mm to 925 mm containing about 170.0 Kgs (net material). Four drums to be steel strapped on wooden-pallets suitable for loading/ unloading by fork-lifter. Weight of new empty steel drum shall be **18 Kgs. (Min)**.

Sample: Min. 5 (Five) Kgs of no commercial value with detailed specifications, technical leaflets / brochure and quality of the products from the manufacturer should be submitted **on or before the date of tender opening**. Also the tenderers must provide evidence of country of origin of the product.

16. POLY PROPYLENE POLITAL FOIL (DIFFERENT COLOUR & SIZE) FOR CORE BINDING:

This tape will be used for bonding the units and cable cores. The tape also provides unit identification in Telecommunication Cables.

Breadth of Foil	:	5 mm & 3 mm
Thickness of foil	:	0.05 mm
Tensile Strength	:	25 Kg/mm ² (min)
Elongation	:	15% (min)
Colour	:	Blue, Yellow, Green, Red, Violet, White, Brown, Orange, Grey, Black etc.

Spool Dimension:

- a) Core Inner diameter: 92mm
b) Core Outer diameter: 200mm
c) Travers length = 150mm
Slating: 100%

A. Packaging (for Core dia: 65-66 mm): To be delivered on plastics rolls/core having inside diameter 65-66 mm, outside diameter 148-150 mm including foil & winding length about 98 to 100 mm. Gross weight per roll (including foil) 1.0 Kg. The plastic/Paper core of the foil roll is to be slitted length-wise so that empty cores can be taken out of the machines and wires easily.

Sample: One roll of Polital foil of 3 mm breath about 300 grms (any colours), Core dia. 65-66 mm (For testing purpose) and 10 Meter foil of each colour (to examine colour shade) of no commercial value with detailed specifications, technical leaflets and quality certificate of the manufacturer should be submitted along with the offer.

B. Packaging (for Core dia: 91-92 mm): To be delivered on plastics rolls/core having inside diameter 91-92 mm, outside diameter 230-240 mm including foil. Core length 200 mm & winding length about 180 to 190 mm. Gross weight per roll (including foil) 2.5 to 3.0 Kgs. The plastic/Paper core of the foil roll is to be slitted length-wise so that empty cores can be taken out of the machines and wires easily.

Sample: One roll of Polital foil of 3 mm breath about 300 grms (any colours), Core dia. 91-92 mm (For testing purpose) and 10 Meter foil of each colour (to examine colour shade) of no commercial value with detailed specifications, technical leaflets and quality certificate of the manufacturer should be submitted along with the offer.

ANNEXURE- II

(Specimen)

BANK GUARANTEE IN LIEU OF PAY ORDER / BANK DRAFT / SDR

Bangladesh Cable Shilpa Limited,
Shiromoni Industrial Area,
P.O. Sonali Jute Mills, Code No. 9206,
Khulna.

Guarantee No.
Dated
(For mentioned amount)

Dear Sir,

Whereas Bangladesh Cable Shilpa Limited (BCSL), Shiromoni Industrial Area, P.O. Sonali Jute Mills, Khulna-9206, under tender No.dated inviting tenders for supplies of (described supplies) has agreed to waive the requirement of cash deposit/call deposit of US\$/£/€/Taka..... as tender security by the bidder for making the supplies in accordance with the terms and conditions of the tender, if the tenderer shall provide the Bank Guarantee for payment for the said amount.

And whereas the tenderer

M/s. ofhas requested us (name of bank) of to issue an unconditional guarantee for payment of the amount of US\$/£/€/Taka when called upon.

In consideration of the above, we (name of bank) ofhereby undertake and guarantee due performance of the bidder M/s. ofand unconditionally and absolutely bind ourselves.

1. To make payment without any question whatsoever of US\$/£/€/Taka..... to Bangladesh Cable Shilpa Limited (BCSL) or as directed by the authority immediately on receipt of demand from M/s. Bangladesh Cable Shilpa Limited, Khulna in writing, in the event of the bidder fails to perform the tender. It is expressly understood that M/s. Bangladesh Cable Shilpa Limited shall be the sole judge for deciding whether the bidder has performed the tender and fulfilled the terms and conditions of the tender.

2. It is specifically stipulated and understood by the Bank that any grant of time or indulgence to the bidder without reference to the bank shall not any manner tend to absolve the bank from its liability to make payment as stipulated above under this guarantee.

3. The Bank's commitment under this guarantee is limited to an amount of US\$/£/Taka (.....) only.

4. This guarantee will remain valid for **90 (ninety) days** from the date of opening of the Tender up to

Yours faithfully,

(Seal of Bank)

.....Bank.

Dated:

(Specimen)

(STAMP)

PERFORMANCE GUARANTEE

Bangladesh Cable Shilpa Limited,
Shiromoni Industrial Area,
P.O. Sonali Jute Mills, Code No. 9206,
Khulna, Bangladesh.

Bank guarantee.....
Dated.....
(For mentioned amount)

Dear Sir,

Whereas Bangladesh Cable Shilpa Limited (BCSL), Shiromoni Industrial Area, P.O. Sonali Jute Mills, Code No. 9206, Khulna hereinafter referred to as the buyer proposed to enter into a contract through Notification of Award(NOA) No.dated..... hereinafter called the contract with (name of the sellers) of hereinafter referred to as the sellers for the supply of (described supplies) in accordance with the terms and conditions of the contract.

And whereas the sellers have requested us (name of Bank) to issue an unconditional bank guarantee for an amount of US\$/£/€/Taka.....being **10 (Ten) percent** of the C&F/CFR value of the offered material (name of the material with quantity).

In consideration aforesaid we, (name and Bank)hereby undertake and guarantee due observance and performance of the terms and conditions of the contract by the sellers and we unconditionally and absolutely bind ourselves:

1. To make payment on demand and without demur and without reference to the seller of US\$/£/€/Taka to the buyers or as directed by the buyers in writing, if the seller fails to perform the contract or fulfil the terms and conditions thereof.
2. To keep this guarantee valid and in force for **6 months from the tentative date of shipment and extendible** for a further period if so required by the buyers.

The guarantee is unconditional and it is expressly understood that the Buyers shall be the sole judge for deciding whether the sellers have performed the contract and fulfilled the terms and conditions thereof.

It is specifically stipulated and understood by us (Name of the Bank) that and grant of time or indulgence to the sellers without reference to us shall not in any manner tend to absolve us from our liability to make payment as stipulated above under this guarantee.

Our commitment under this guarantee is limited to an amount of US\$/£/€/ Taka.....only.

Yours faithfully,

(Seal of Bank)

Dated:

.....Bank.

ANNEXURE- IV

(To be filled by the manufacturer in letter head pad)
Material Specification Confirmation Form (MSCF)

Name of offered Raw material:

Name of the Manufacturer: -----

Country of Origin : -----

Tender No. : 14.37.0000.702.07.262.18.619

Dated: 04-03-2018.

Tender opening date: 04-04-2018.

Tendered Specification/Requirements of				Comments/ Clarification of deviation (if any).
Properties of materials:				
Parameters mentioned in the tender documents	Unit in tender document.	Value in tender document	Offered Value.	
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
Original technical leaf-lets of manufacturer to be submitted with the sample.				
Sea- worthy Export Packing	The packing should be standard, free from moisture, rain, water & weather-proof, suitable handling which will keep the material properties unchanged during transportation and facilitate loading/unloading by fork-lifter.			
Names of other international manufacturing organizations using it for same purposes.				
Reference of past supply to BCSL.				
Remarks				

Designation of Authorized officer _____ Signature _____

THE END