

FROM:
THE DIRECTOR
RESEARCH & DEVELOPMENT ESTT.
DIGHI,PUNE-411015.
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**SHORT TERM
AGREEMENT
PART I
INVITATION TO
TENDER**

(FM011) BY SPEED POST/UNDER CERTIFICATE OF POSTING		
TE NO: D396CEM20284		
Date : 17/12/2007		
	DUE ON 07/02/2008	
AT	1300	hrs

Dear Sirs,

The supplies/services noted below are required as per Part II below. Please fill in the quantities and rates at which you are prepared to supply any or all of them, and sign and submit the tender below along with the special conditions attached hereto as early as practicable. The supplies / services will be subject to approval by the undersigned or the committee of officers before they are finally accepted for and on behalf of the President of India (here in after called "THE GOVERNMENT") and should you on receipt of orders to that effect in form IAFZ-2135 fail to make any supplies / services in accordance with the conditions and schedule to the acceptance of tender the GOVERNMENT reserves to themselves the right to obtain the stores elsewhere at your risk and expense as shown on the special conditions appended hereto. Government also reserves to themselves the right the whole or any part of the same at the rate quoted. Tenders should be accompanied by **Earnest Money Deposit Rs. 2,00,000 /-** value of the offer by Crossed Demand Draft/ Banker's Chaque, Bank Guarantee obtained from any Commercial Bank and drawn in favour of The Director, R&DE(Engrs) payable at Pune, Fixed Deposit Receipt, payable at Pune and enclosed in the **PRICE BID** . However, **confirmation** about enclosure of EMD in Price bid shall be given in **Techno-Commercial bid** .The EMD of successful tenderer shall be refunded after receiving **Bank Gurantee for 10%** of Supply Order value valid upto 90 days beyond due date as security deposit.

You are requested to ensure that the drawings and specifications enclosed alongwith this enquiry are returned with your reply,if applicable.

Yours faithfully

**SCIENTIST 'E'
(HR KHADILKAR)
FOR DIRECTOR
for and behalf of President of India**

Please quote your rates for Door Delivery

PLACE OF DELIVERY

DELIVERY PERIOD

PACKING

FORWARDING

EXCISE DUTY

CST/ST /VAT

OCTROI

FREIGHT

SPECIAL CONDITIONS

1. Sales Tax,if chargeble be shown seperately.

2.QUOTATION SHOULD BE SUBMITTED IN A SEALED COVER AND CLEARLY MENTIONED " QUOTATION AGAINST TENDER ENQUIRY NO _____ DATE _____ DUE ON _____ " QUOTATION SHOULD BE SUBMITTED IN A SEALED ENVELOPE EITHER BY POST OR WILL ONLY BE PUT IN TENDER BOX KEPT AT GATE OFFICE ROOM.TENDERS RECEIVED LATE WILL NOT BE CONSIDERED.

3.Payment will be made within 30 days on satisfactory receipt of stores.

4. Offers,unless otherwise called for shall be for only ready stocks available for despatch/delivery without delay ,on receipt of order on process,that are firm and do not fluctuate.

5. Offers shall be for the exact type,size and make of stores as detailed and where alternative are stated as accepted and/or offered,their particulars shall be furnished in full in the remarks column.No amendment or alterations to the details quoted above shall be made by the supplier

6. Taxes,duties/Levies,packing and forwarding charges ect. if any payable extra shall be specified distintly from the price quoted for the stores and shall be stated in terms of amounts involved,even if approximate.

7.Rate quoted shall be in terms of units exactly as called for and shall be in both figures and words.

8. All offers shall be open and valid for,acceptance for a minimum period of 90 days from the date fixed for opening of the tender .

9. Representative samples where called for,shall be forwarded free of cost & all transit and other charge on non-returnable basis.Samples if not expended and/or otherwise mutilated in test,will be included ifsentenced unsuitable to court towards bulk supply, if such a supply is ordered and if sentenced unsuitable will be returned to the supplier at his cost and risk.

10. No Octroi Exemption Certificate will be issued to firms located within the pune municipal limits. In case the material is purchased from outside the PMC limits octroi will be paid by the firm and refund claimed subsequently from PMC.

11. Delayed supplies:In case of delayed supplies,liquidated damages at the rate of 0.5 percent per week of delay with a maximum of 5 percent will be levied.

PART III

TO

THE DIRECTOR

R & D E (ENGRS)

DIGHI,PUNE-411 015.

Agree to furnish if required supplies/services specifiedin part II an accordance with the conditions and specialconditions hereto on receipt of order for the same.

STATION:

DATE:

SUPPLIER.

PART II SCHEDULE OF REQUIREMENT

Sr. No	<u>NATURE OF SUPPLIES</u>	QTY REQD.	QTY. CAN BE SUPPLIED	RATE	REMARK	PER	RS	P
1	HIGH STRENGTH PLAIN WEAVE/STITCH BONDED UNIDIRECTIONAL CARBON FABRIC OF 1000MM WIDTH(MINIMUM) Specification as per Appendix `A`	7000 Kgs						

Note: You are requested to submit Techno-Commercial bid and Price bid in separate sealed envelopes superscribed with the same.

Techno-Commercial bid should contain detailed Item / Equipment / Material description & specifications, payment terms, Installation & Commissioning details without cost, guarantee / warranty, delivery Schedule, transit insurance, Custom Duty Exemption / Excise Duty Exemption Certificate required, Post warranty AMC, Confirmation about enclosure of EMD in Price bid etc.

Price bid should contain basic price, EARNEST MONEY DEPOSIT, duties/taxes (i.e. Custom/excise duty, sales tax), installation/commissioning cost, training cost etc. separately.

**SCIENTIST 'E'
(HR KHADILKAR)
FOR DIRECTOR**

APPENDIX 'A' to Tender Enquiry No. D0284 Dated 17/12/20007.

HIGH STRENGTH PLAIN WEAVE/STITCH BONDED UNIDIRECTIONAL CARBON FABRIC OF 1000MM WIDTH , QTY – 7000 Kgs

Technical Specifications:

1. **Warp Fiber:** >99% unidirectional continuous fiber tows based on polyacrylonitrile (PAN) precursor. Fiber must be Toray T300/T700C with 12K filaments/tow.
2. **Weft Fiber:** Fusible combination Yarn of Fiber Glass bonded with low melt thermo plastic
3. **Fabric gsm:** 500
4. **Fabric Width:** 1000 mm or more
5. **0% fiber waviness**
6. **Compatibility:** Fabric will be used as a reinforcing material in composites consisting of epoxy matrix. Fibers must have surface treatment suitable for epoxy system. Data sheet must confirm the same.
7. **Free Sample for Characterization:** Free sample of 5 sq.mtrs must be submitted along with the tender. Sample must be packed in roll form. This free sample will be used to fabricate laminates for mechanical characterization of composites using VARTM process. The fabric will be technically accepted if the characterization results meet the minimum strength values given below:
 - i. **Tensile Strength as per ASTM D3039:** 2000 MPa minimum normalized to 55% volume fraction of fibers
 - ii. **Tensile Modulus as per ASTM D3039:** 125 GPa minimum normalized to 55% volume fraction of fibers
 - iii. **Compressive strength as per ASTM D3410:** 800 MPa minimum normalized to 55% volume fraction of fibers
 - iv. **Moisture Degradation as per ASTM D5229:** No degradation of tensile strength and 10% degradation of compressive strength will be accepted. Moisture saturation will be conducted as per ASTM D5229 and after full saturation, tensile and compressive testing will be performed as per ASTM D3039 and ASTM D3410 respectively.
8. Manufacturing test certificate for carbon fiber tow must be provided. This must include following:
 - i. Filament diameter: <10 micron
 - ii. Number of fibers per tow: 12K
 - iii. Surface treatment confirmation for epoxy matrix systems
 - iv. Manufacturing date
9. Manufacturing test certificate for fabric must be provided. This must include following:
 - i. Textile technology used: Stitched or stitch bonded
 - ii. Stitch or stitch bonded material pitch 30mm (minimum).
 - iii. Indicative ply thickness
10. Manufacturing test certificate for UD laminates showing following mechanical properties normalized to 55% fiber volume fraction must be provided.
 - i. Tensile strength
 - ii. Compressive strength
 - iii. Flexural strength
 - iv. ILSS
11. **Packaging:** Fabric must be supplied in rolls properly wrapped in plastic film. Fabric should be rolled on a spool, and spool ends must rest on side supports whose height is greater than radius of the roll, such that fabric is never in physical contact with sides of the carton. All packages must be properly sealed and must remain intact till receipt at R&DE(E). Drawing of packing structure must be submitted along with the bid and approval will be given by R&DE(E).

12. Packaging, Forwarding/transport, insurance, unloading of stores at R&DE(E) site to be arranged by supplier.
13. Specify all taxes and duties in the techno-commercial bid. Custom duty exemption (CDE) certificate will be given for imported items. Excise duty exemption (EDE) certificate and Octroi exemption certificate (OEC) will be given. If the above mentioned certificates are required it must be mentioned in techno-commercial as well as price bid.
14. Standard Payment Terms: 90% within 30 days after acceptance of material by R&DE (Engineers). Balance 10% after expiry of warranty period of one year or against Bank Guarantee for equivalent amount for warranty period.
15. Tolerance (in Weight) : +/- 5 % accepted.

SCIENTIST 'E'
(HR KHADILKAR)
FOR DIRECTOR