

**Transportation Engineering Laboratory
Department of Civil Engineering
IIT Delhi, Hauz khas, New Delhi 16**

Dated: 17.08.2011

Sealed quotations are invited for the purchase of the following items by Transportation Engineering Laboratory, Department of Civil Engineering, IIT Delhi confirming to the technical specifications given below:

Item: Digital Softening Point Apparatus

Quantity: One

Technical Specifications:

- It should confirm to ASTM D36, AASHTO T53
- It should be of Digital microprocessor controlled softening point tester which determines softening points of Asphalt and Pitches automatically
- Laser detector to detect the balls fall determining softening point
- 0 to 160 rpm magnetic stirrer adjustable speed
- Temperature rise rate = 5°C/ min – should be automatically controlled
- Two test parameters selection
 - i) 30 to 80 ° C – test on distilled water
 - ii) 80 to 150 ° C – test on glycerin
- Ceramic glass heating plate with cut off at the end of test cycle
- Real time visualization of the bath temperature, test progress, RPM of stirrer
- Memory up to 300 tests results
- RS232 port for PC or Printer
- 230 V, 1 Phase, 50 Hz
- Should be supplied complete with steel ball, ball centering device, shouldered rings
- It should have functions for entry the details on the display and report generated, clock, date, test number, user/customer name, start/end of test
- High resolution 320 x 240 pixels graphic display with membrane keypad

Terms and Conditions:

- Separate sealed **technical** and **commercial** bids should be submitted in separate envelopes; otherwise the quotation will be rejected
- Quotation should be directly from the original developer or authorized sales agent
- The cost should include delivery (CIF Delhi), installation and training at IIT Delhi
- If the items are proprietary product of the company, a proprietary certificate stating the same may be provided
- If the bidder is not a manufacturer, authorization from the manufacturer needs to be enclosed.
- Three names and addresses and emails of current users are to be provided along with the quotation
- The validity of the offer should be for 4 months

- Delivery period should be mentioned
- Details on installation, commissioning and training must be specified
- Preferred method of payment will be through Letter of Credit (LC) or Electronic Fund Transfer (EFT) / Wire Transfer (WT)
- The details of recipient of payment LC / EFT/WT should be given clearly
- The last date for receipt of price offer is **1st September 2011, 5 pm**
- IIT Delhi reserves right to accept/reject any or all quotations without assigning any reason

Sealed quotations be submitted to:

Dr. Kalaga Ramachandra Rao
Associate Professor and Officer In-charge
Transportation Engineering Lab
Department of Civil Engineering
Indian Institute of Technology Delhi
Hauz Khas, New Delhi - 110016
India