



Indian Institute of Technology Kanpur

Samtel Centre for Display Technologies

Enquiry number: SCDT/FlexE/2015-16/12

Date: 15/10/2015

Quotations from prospective vendors are invited by Samtel Center for Display Technologies, IIT Kanpur for Rheometer.

Note: The technical and financial bid should be submitted together in separately sealed envelopes.

We are looking for a Rheometer for testing of our inks, varying viscosity from 1cP to 20000cP. The primary requirement of the Rheometer is to measure the rheology by using minimum amount of ink (not more than 2-3ml of inks). The Rheometer must have following minimum technical specifications.

1. Should have SEARLE operating principle .
2. Measuring head type must have DC motor / synchronous motor.
3. Torque range should be 6nNm to 190mNm OR Better.
4. Motor bearing system should have dual air bearing features.
5. Speed range should be 0.01 TO 3000 RPM or Better.
6. Frequency range should be 10E-5 to 628 rad/s.
7. It should have Angular (STRAIN) Resolution, which should be 12 nrad or Better.
8. The strain sensors must have high resolution optical encoder.
9. It should have modes, which includes rotational and oscillatory features.
10. The measurement type must have rotational, oscillatory, & transient features.
11. The oscillatory modes should have strain oscillation & control stress.
12. The sample loading feature must include electronic or mechanical lock during sample loading.
13. The pc interfaces should have direct usb interface or ethernet or serial interface.
14. The temperature control system should have peltier plate system for plate-cone with solvent trap.
15. The temperature range should be 0 to 200 °C.
16. It should have measuring systems with wide shear rate range & minimal sample volume including parallel plates and cone geometries.
 - Parallel plates: 50mm – sandblasted – steel plate, 60mm – smooth surface – steel plate, 40mm – smooth surface – steel plate, 15mm – smooth surface – steel plate, 25mm – smooth surface – haste alloy plate
 - Cones – 40/1 – sandblasted cone – steel cone, 40/4 – smooth surface – steel cone, 60/1 – smooth surface – steel cone, 25/2 – smooth surface – steel cone, 25/4 – smooth surface – steel cone.
17. It should have rheology software including architecture template based with built-in templates pre-programmed for all types of materials and testing protocols with Rotational with rate/control stress
Oscillatory strain amplitude / control stress / combination of strains. Transient with creep (single/multi-level)/ combination with any modes above – for e.g. transient + rotational or oscillatory +rotational
18. Compressed air dryer along with the filter should also be quoted with the system
19. System should be quoted with branded PC with the above mentioned interface configuration
20. Concentric cylinder geometry should also be quoted as an optional item along with peltier controller of temperature 0-150°C(if it is required separately) .
21. System should be future upgradable for the measurement of powder rheology, effect of humidity & temperature on samples, rheomicroscopy and dynamic mechanical thermal analysis.
22. Two year warranty is mandatory
23. Third year warranty should be quoted as an optional item
24. Third, fourth and five year AMC should also be quoted as optional item

Terms and Conditions:

1. Supplier/Vendors should submit technical and financial bid together in separately sealed envelopes.
2. Supplier who has supplied at least 5-6 similar Rheometer in the national and international institutions in last two years will be preferred.
3. Financial bid will be open only for those, who meet tender technical specification.
4. Please do mention tender number clearly on envelop.
5. Please send the name and contact details of the person to whom company had supplied a similar systems. Committee may ask for the feedback.
6. Vendors should have to submit the detail's designed as per tender specification.
7. Optical design should be submitted along with the technical bid.
8. The supplier must have supplied systems to institutions of national and/or international repute.
9. Quotation must indicate FOB prices.
10. Payment terms & condition is 70% against delivery, 20% after installation and 10% after successful running of equipment for 3 months & approval.
11. Warranty/Guarantee should be clearly mentioned. The Warranty must start from the date of installation at IITK.
12. Installation, demonstration, and training-sessions at IIT Kanpur will have to be provided by the manufacturer or the vendor for the quoted system.
13. Quotation should carry proper certifications like proprietary certificate, authorization certificate from manufacturer, etc.
14. Validity of quotation should be at least for 60 days.
15. Maximum educational discounts should be applied.
16. Institute is exempted for partial custom duty (CD applicable to IIT Kanpur is 5.15%).
17. Institute is exempted from payment of Excise Duty under notification No. 10/97.
18. The delivery period should be specifically stated. Earlier delivery may be preferred.
19. The indenter reserves the right to withhold placement of final order. The right to reject all or any of the quotations and to split up the requirements or relax any or all of the above conditions without assigning any reason is reserved.

Kindly send the quotation in sealed envelopes latest by 3:00 pm on dated 03/11/2015 to the following address:

To,
Dr. Monica Katiyar
Room No.305,
Samtel Centre for Display Technologies (SCDT),
Indian Institute of Technology Kanpur,
Kanpur – 208016,
Uttar Pradesh, India