



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

MATERIALS MANAGEMENT DIVISION

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PR NO.1000044161

RFx No.6100002473

**Technical Specifications for Isothermal Calorimeter**

Sr. No.	Tender Specifications	Compliance (Yes/No)	Additional Information
1.	<p><b>I-Cal Ultra isothermal calorimeter for 20 ml samples</b></p> <ul style="list-style-type: none"> <li>a) The calorimeter must be an isothermal conduction calorimeter</li> <li>b) The temperature must be computer controlled from the software</li> <li>c) The Operating Temperature range must be 3 °C to 90 °C or better</li> <li>d) The temperature stability must be +/- 0.005 °C or better in a research laboratory setting</li> <li>e) The calorimeter must be comprised of a thermostat and separate calorimeter cells, with each cell having its own heat sink in order to minimize cross-talk.</li> <li>f) The thermostat must allow for the following calorimeter cell configurations: <ul style="list-style-type: none"> <li>o between 1 to 8 individual and autonomous calorimeter cells (defined by user) for 20 ml sample vials, for simultaneous measurements in the same experiment</li> </ul> </li> <li>g) The user should have the ability to extract a single cell for maintenance without affecting the rest of the calorimeter, so that the calorimeter can continue to be used with all other cells.</li> <li>h) The precision in normal laboratory conditions with 20 ml vials must be at least +/- 2 µW</li> <li>i) The baseline drift over 24 hours with 20 ml vials must be less than 5 µW, with a deviation of less than 1 µW</li> <li>j) 20 ml calorimeters must be compatible with an internal mixing device that imparts a rotatory <b>and</b> vibratory movement to the sample to be mixed</li> <li>k) Admixture ampoule / internal mixer must apply a vibratory movement to the sample during mixing</li> </ul>		
2.	Warranty: 1-year on-site warranty from the date of installation and acceptance		