

Annexure-V

Compliance report

Note: The bidder is required to mention detailed specifications clearly in column named as Specifications from Bidder against each item as mentioned in below format. Please note that merely mentioning Yes/No in deviation column will lead to disqualification of the bidder.

(I) Name of Instrument : Asphalt Lab (ROTATIONAL VISCOMETER)

Sr. No.	Specification of e-Tender	Specification of Bidder/Vendor	Deviation (Yes/No)	Remarks
1	<p>ROTATIONAL VISCOMETER:</p> <p>Technical specification for rotational viscometer with automated and advance features for measuring viscosity of bitumen at different high temperatures, varying rpm, strain rate, stress etc. in accordance with ASTM D4402, AASHTO T 316</p> <p>The quote should include prices for all items (do not provide them in optional item) required for successful functional of this instrument. We are looking for a complete set of this instrument and ready to use once it is being installed. Provide the point-wise technical compliance table.</p> <p>Technical Specification</p> <ul style="list-style-type: none"> • Capable of measuring the torque required to rotate the selected apparatus-measuring geometry (Spindle) at a selected constant speed (preferably rotational speed range 0.1 200 rpm or beyond) while submerged in asphalt/bitumen at constant desired test temperature, and with the capability to convert the torque measurement to viscosity in pascal seconds, millipascal seconds, or centipoise. • Capable of conducting test at different shear rate, shear stress, strain rate, torque etc through programmed software • With data logger software and all other necessary accessories, with wide range of viscosity. 			

	<ul style="list-style-type: none"> • Should include all types of spindles to be used for bitumen, temperature probe, software, spindle guard leg, carrying case for spindle and other accessories • Temperature-Controlled Thermal Chamber Heater (programmable temperature controller), for maintaining the sample of asphalt at the test temperature with an accuracy of 0.1°C. • Temperature Controller, capable of maintaining the specimen temperatures to ± 1.0 °C for test temperatures between 30 and 260°C or beyond. • Sample Chambers, reusable and disposable. • Platinum Resistance Thermometer (PRT), with a probe which conforms to the requirements of Specification E1137, for measuring the temperature of the thermal chamber. • Certified reference fluid, of known viscosity at various temperatures, for calibration of rotational viscometer. The reference fluid shall be certified to be Newtonian in behavior over the full range of expected test temperatures and shear rates. • Sample stand/rack • Inbuilt software for automatically control and collect data, and analyze data, generate graph, change test types, shear rate, rpm etc • Personal computer with standard configuration, for easy functioning of the software and instrument • Timer to set time and date for automatic preheat • Cleaning accessories for sample tubes • Voltage: 240 V AC 50/60 Hz, single phase, • Include bitumen sample holder for measuring viscosity (100 quantity) • It should be Programmable, Multistep, Ramp 			
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