Technical Specifications of FT-IR Spectrophotometer

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S. No.	Description	Technical Details
1.	Basic System:	High-performance, high-resolution software controlled FTIR to
2.	Spectral Range:	comply all national & international food regulations. 8000-350cm ⁻¹ or better
3.	Beam Splitter:	
3. 4.	Resolution:	Ge Coated KBr or Suitable as per system requirement,
4.	Resolution:	0.6 cm ⁻¹ or better or suitable resolution to comply all national & international food regulations.
5.	Signal to noise	14,000:1 peak to peak/RMS 4 cm ⁻¹ resolution, 1 minute or better or
	ratio:	suitable resolution to comply all national & international food
		regulations.
6.	Light source:	High-energy ceramic source
7.	Interferometer:	Michelson, Sealed and desiccated
8.	Detector:	DLATGS/DTGS/ LiTaO3
		Detector with temperature control mechanism or Suitable as per
0	TT7	system requirement
9.	Wavenumber	0.05 cm ⁻¹ or better
10.	Accuracy Internal	The greatern might have an intermal 111 d
10.	validation unit	The system must have an internal validation unit or Transmission module and should provide built-in NIST Traceable Polystyrene
	vandation ann	film for instrument calibration with 5 years validity certificate.
11.	Software:	Windows 10 based latest software. System should have self-
	·	diagnostics function.
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		• Software should have provision for creation of user library.
		 Software should automatically recognize the attached
		accessories like ATR & DRA.
* .		 Software should be able to perform Identification,
		Quantification & Spectrum Analysis.
		 Software should be able to compare the collected spectrum
		with a spectral library and should finds the best spectral
12.	Library:	match automatically.
12.	Library.	Original and licensed library of at least 10,000 spectra for organic, inorganic, polymers, plasticizers, additives, common white
W.,		powders, Georgia forensic Library, drug/pharma samples etc.
13.	Accessories:	1) Supplies: Transmission Cell for Liquids, Gels, Pastes with
		NaCl Windows, Pellet Holder, KBr die set, KBr Powder,
•		Agate Mortar Pestle = 1 Each.
5.		2) Hydraulic Press 15-ton capacity
		3) i5 computer with suitable configuration for software
14.	Warranty:	One Year against manufacturing defeat on complete instance 4.10
17.	vvarianty.	One Year against manufacturing defect on complete instrument. 10 years warranty on interferometer, laser and source.
15.	Documents:	IQ/OQ to be performed during installation and documents to
.]		be provided by the supplier/manufacturer.
16.	Upgradeability:	Diamond ATR for Liquids, Powder, Film samples & Microscope.
	10	Vendor should attach application notes in this regards.
17.	Important Note:	Vendor should clearly mention make and model, also enclose
-	,	Catalogue/Data sheet of the Model quoted in support of the above-
		mentioned Specifications otherwise their bids will be rejected. No
		letter head justifications will be accepted.
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