

Annexure A

Thermal Analyzer (TG/DTA/DSC)

Technical Specifications		
1	Temperature range	RT to 1500 °C or better
2	Temperature Accuracy	±1°C or better over the whole temperature range
3	Heating range	0.1 to 100 °C/min or better
4	Furnace Cooling	35 min (1500 to 50 °C) or better
5	TGA resolution	0.1µg or better
6	Crucible materials	Aluminium -100 nos, Alumina -24 nos, platinum - 4 nos crucibles with lid, ceramic crucible – 6 nos.
7	Crimpling tool	To be used with aluminium crucible.
8	Calibration standards – Low temperature and High temperature	Low and High temperature standards
9	Software	User friendly analysis software compatible with latest windows i5/i7 version to control the system to perform the measurements. It should analyze TGA, DSC (Melting and crystallization behavior, glass transition, polymorphism, solid-solid transition, heat capacity etc) and should be upgradable or inbuilt to DTA/TGA/DTG analysis.
10	Warranty	manufacturer warranty 24 months
11	Training	Onsite training by specialist.
12	Evolved Gas Upgradability (EGA)	The instrument should be upgradable to Evolved Gas Upgradability (EGA)
13	Integrated Mass Flow Controller (MFC) with min. 2 inlets	Two inlets for gas controller with automatic switch (inert or reactive) MFC should be inbuilt
14	Cp analysis	Cp analysis mode should be available through compatible software
15	UPS	30 min backup with MF batteries, trolley and 2 years warranty compatible with Thermal analyzer (TG/DTA/DSC)
16	Complete installation and commissioning at the site with sole responsibility of the supplier	