



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
Materials Management Division
For IIT GOA

X-Ray Diffractometer (XRD) Specification:

1. X-Ray tube: Standard
2. Anode material/target: Cu
3. Maximum power: 600W (Accelerating voltage - Upto 40kV)
4. Stability: Within $\pm 0.05\%$ for within $\pm 10\%$ input power variations
5. Filter: Appropriate Beta filter
6. Stages: Standard
7. Goniometer: Vertical type, Radius - upto 150mm
8. Scanning range: -2° to $+140^\circ$ (2θ)
9. Scanning speed: $0.01^\circ/\text{min}$ to $100^\circ/\text{min}$
10. Minimum step width: 0.005°
11. Detector and slits: Appropriate with system
12. Sample holder: Standard
13. External cooling system: standard (if required for the system)
14. Software packages: compatible software for the analyses with offline analysis option
15. Warranty: 36 months from the date of installation
16. Special condition: Test samples should be characterized by the instrument supplier and include the results with the technical bid documents
17. Manufacturer/supplier needs to provide the information of the similar instrument users in India and foreign.