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| **SUPERPAVE GYRATORY COMPACTOR**  **SUPERPAVE GYRATORY COMPACTOR**   |  |  | | --- | --- | |  | **Name of the equipment:**  Superpave Gyratory Compactor  **Make & Model:**  MATEST B041-01  **I-Stem Registration ID-**  **……………………..**  **Category of Instrument**  Sample Preparation  **Types of Analysis / Testing**  To compact asphalt mix  **Application:**  The Superpave Gyratory Compactor is used to compact asphalt mix into cylindrical specimens and it simulates real-world road paving conditions, determining the compaction properties of asphalt.  **Description of Instrument**  An instrument designed to compact asphalt mix into cylindrical specimens using a heavy, rotating  ead driven by an electro-pneumatic motor. | | **Book through I-STEM:**  <https://www.istem.gov.in/>  **Slot Booking Link**  I-STEM Slot Booking link for External User | **Booking Details**  **Booking available for**  Internal and External Both  **Requisition form for**  [Internals](https://randc.nitc.ac.in/pdf/instruments/civil/CED-REQUISITION_FORM_Internal.pdf)  [Externals](https://randc.nitc.ac.in/pdf/instruments/civil/CED-REQUISITION_FORM_Internal.pdf) |   **Contact Details**   |  |  |  | | --- | --- | --- | | **Faculty In-charge:**  Dr. M. Sivakumar  **Email ID:**  [sivakumarm@nitc.ac.in](mailto:sivakumarm@nitc.ac.in)  **Phone number:**  0495-2286232 | **Technical Staff:**  Ajin Das C K  [ajindasck@nitc.ac.in](mailto:ajindasck@nitc.ac.in)  Abhiraj A R  [abhirajar@nitc.ac.in](mailto:abhirajar@nitc.ac.in)  Chandni P R  [chandnipr@nitc.ac.in](mailto:chandnipr@nitc.ac.in) | **Department**  CED  **Office Email ID**  [cedoffice@nitc.ac.in](mailto:cedoffice@nitc.ac.in)  **Location**  Pavement Engineering Laboratory  **Lab Phone No.**  0495-2286243 |   **Features, Working Principle and Specifications**  **Type of Sample Required for Analysis / Testing (Quantity, Pre-Preparation, State etc.) Guidelines for Sample Submission – User Instructions**   |  |  | | --- | --- | | **Features of the equipment**   * Automatic compaction * Precision angle control * Touch-screen interface * Remote test control * Unlimited memory storage | **Unique features/Measurement capabilities, if any**   * Gyratory motion for real-world compaction simulation * Internal angle control (1.16° for ASTM, 0.82° for EN) * Precise load application with electro-pneumatic cylinder * Remote test control through dedicated software | | **Instrument Technical Description and Major Specifications (This Specifications Limited to Major 5)**   * Power supply: 230V 1ph 50/60 Hz 1000W 12A * Dimensions: 640x510xh1400 mm * Weight: 260 kg approx. * Standards: Meets ASTM and EN standards | **Measurement/Sample specifications:**   * Sample Size: 150 mm (6 in) diameter x 63.5 mm (2.5 in) height * Sample Weight: Up to 10 kg (22 lbs) * Sample Material: Asphalt mix, soils, and emulsion-based mixes * Sample Temperature: Room temperature to 120°C (248°F) * Sample Moisture Content: Up to 10% moisture content |   **User Charges Rs. (GST Extra)**   |  | | --- | | * Quantity: 1-2 kg (2.2-4.4 lbs) * Sample Type: Asphalt mix, soils, or emulsion-based mixes * Pre-preparation: None, but sample must be free of contaminants and water * Type of Samples to be Analyzed: Compaction properties, density, and moisture content * Minimum No. of Days Required for Analysis: 1-2 days |  |  |  |  |  | | --- | --- | --- | --- | | **Internal** | **External Academic Institutes** | **National R&D Lab** | **Industry** | | 500/- per test | 500/- per test | 1000/- per test | 2000/- per test | |