GPC is used to determine molecular weight (MW) & molecular weight distribution (MWD) based upon the principle of size exclusion chromatography.

DSC is used for thermal analysis of Polymers & Elastomers. Following parameters can be determined:
- Glass transition Temp (Tg)
- Melting Temp (Tm)
- Crystallization Temp
- Cure Characteristics
- Phase Transitions
Elemental Combustion Analyzer is used for quantitative analysis of C, H, N & S in polymers & other materials.

Universal Testing Machine (UTM) is used for mechanical testing of polymers & rubbers. Elastic modulus, tensile strength, compressive strength etc can be determined.

FTIR is used to determine chemical constituent of the given samples of polymers, rubbers, paints, inks etc.
Brabender Plasticorder is used to study rheological properties during compounding. Plastrograph of time, temperature & torque can be generated.

**Polymer Characterization Lab**

22" working diameter x 48" working length
200 Psig @ 650 °F maximum working
CPC computer control system
Pentium III PC, Windows NT, and HP color deskjet printer
Ethernet I/O hardware
480 Volt supply (240 optional)
One (1) air temp thermocouple—Type-J
Four (4) part temp thermocouples—Type-J (more as option)
Mandrel Rotation SPECIFICATION
Maximum Diameter 610mm
Spindle Capacity (mandrel + part) 227Kg
Tooling 5” 3-jaw chuck
Effective Speed Range 0-150 rpm
Rated Spindle Torque 37 Nm

Overall dimensions 6500 MM* 1200 MM
*2000-2400 MM.

PULLING FORCE 8000Kgf.[ 8 MT ]
PULLING SPEED: 0.12 Meter – 1.6 Meter. / Mini
PULLING SYSTEM 2 Nos. of Pulling Linear Movement.
1000X700MM.
GRIPPING/CLAMPING 2 Nos of Grippers, Actuating by Pneumatic System.