



# KELVN LABS



(AN ISO 9001-2015 COMPANY)

AN ISO/IEC-17025:2017 [NABL] Accredited laboratory

**A single stop destination for testing, trouble shooting and problem fixing of all plastic, rubber and composites raw materials and finished goods**

## OUR TESTING SERVICES

### THERMAL PROPERTIES

- Glass Transition Temperature, T<sub>g</sub>,
- Heats of Fusion & Evaporation
- Purity of polymers
- Life estimation of polymer & end Products
- Composition of Polymer, Rubber & Plastics
- Identification of Polymer in plastics
- Melting Point of Polymer
- Oxidation induction time(OIT)
- Thermal conductivity
- Thermal Stability Of Polymer
- Coefficient of Linear Thermal Expansion(CLTE)
- Solvent , Water Content Analysis

### MECHANICAL PROPERTIES

- Tensile Strength ,Elongation & Elastic Modulus
- Flexural Strength & Modulus
- Tear Strength
- Inter Laminar Shear Stress
- Ultimate load bearing strength
- Compression strength
- Creep & Relaxation
- Izod & Charpy impact test
- DMA Analysis With
  - Compression,Single Cantilever ,Dual Cantilever, Bending ,Extension & Compression attachment
- Compression Set of Rubbers.

### PHYSICAL PROPERTIES

- Density
- Specific Gravity
- Refractive Index
- Barcol hardness
- Shore A hardness
- Vickers hardness
- Brinell Hardness
- Rockwell hardness
- Zeta Potential
- Particle Size analysis
- Mooney Viscosity & Scorch Time
- Melt Flow Index & Melt flow rate

### ELECTRICAL PROPERTIES

- Di-electric Strength
- Di-electric Constant
- Tan D & Break Down Voltage
- Surface & Volume Resistivity
- Surface Charge
- Electrical Conductivity

### SPECTROSCOPIC PROPERTIES

- Metal and Alloy Composition
- Heavy metals Analysis
- Elemental Analysis
- Minerals and Ores composition

**Production & Development of Speciality Additive master Batches and Speciality Resins**

**STATE-OF-THE-ART-EQUIPMENT WITH TESTING OF INTERNATIONAL STANDARD**

**Plot No. 3, Cynosure Enterprises Building 2nd Floor, Road No.12, TSIC Tech Park, IDA Nacharam, Hyderabad-500076, Telangana. Email : kelvnlabs@gmail.com, www.kelvnlabs.com Cell : 9440339815**

## **ACTIVITIES OF TECHNOLOGY DEVELOPMENT CENTER**

- Development of TPE'S ,TPO'S, & TPUS as per customer requirements
- Development of speciality Master batches
- Flame retardant Master batches
- Gloss Improvement Master batches
- Mechanical property Improvement master batches
- FRLS additive master batches
- UV Master batches
- OIT Improvement master batches
- Development of new polymer blends with custom built properties
- Development of Bio-degradable polymers and Sustainable polymers for packaging industries
- Trouble shooting & problem fixing of polymer material's used by end users
- Process development & validation of manufacturing techniques of Processing units
- Development of FRP resins, Space - age Polymers

## **PRODUCTION ACTIVITIES**

- UV Additive Master batches
- FLAME RETARDANT LOW SMOKE Master batches
- Mould Releasing additive Masterbatches
- Gloss Improvement Masterbatches
- Polymer Blends of with custom build properties
- Developmental orders of defence & Government organization
- Production of Space-age Polymers(Resins) and FRP Resins
- Production of Bio-degradable polymers for Packaging Industries

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## **OUR TEST FACILITIES**

1. Dynamic Mechanical Analyser (DMA)
2. Differential Scanning Calorimeter (DSC)
3. Thermo gravimetric Analyser (TGA)
4. Thermo Mechanical Analyser (TMA)
5. Differential Thermal Analyser (DTA)
6. Thermal Conductivity Tester for solids, liquids and powders
7. Particle Size Analyser
8. Zeta Sizer
9. Scanning Electron Microscopy (SEM)
10. X-Ray Diffraction (XRD)
11. ED-XRF
12. FTIR with Ge and Diamond ATR and also KBr Optics
13. Inductively Coupled Plasma for Elemental Analysis (ICP-MS & ICP-OES)
14. NMR (*Including Cryogenic*)
15. G.C. Mass
16. UV-Visible Spectrophotometer
17. Tan D meter
18. Dielectric Constant Instrument
19. Volume Resistivity Meter
20. Breakdown Voltage Tester
21. Dielectric Strength Testing Device
22. Mooney Viscometer
23. Lab scale internal blender for blending polymers
24. Wet laboratory for chemical analysis
25. Two roll mill for blending & calendering
26. Compression molding machine
27. Surface resistivity and Static charge tester
28. Universal testing Machine (UTM)
29. IZOD and CHARPY Impact tester
30. Density Measuring Instrument
31. Melt Flow Indexer (MFI)
32. Conductivity testing instrument
33. Stability Chamber
34. Conditioning Chamber
35. Vicker's Hardness Tester
36. Shore Hardness Tester
37. Brinell Hardness Tester
38. Rockwell Hardness Tester
39. Barcol Harness Tester
40. Vacuum Filter
41. Vicat Softening point Tester
42. HDT instrument
43. Wet Lab Analysis Test Facilities
44. DIN Abrasion Tester for Rubbers
45. Taber Abrasion Tester

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