



# IRMRA

**A World Class Accredited Laboratory for  
Rubber Research and Testing**

*Excellence achieved with legacy of 60 years*

**Helping Rubber World in Building Better Future**



**INDIAN RUBBER MANUFACTURERS RESEARCH ASSOCIATION**  
An autonomous body under DPIIT, Ministry of Commerce and Industry  
GOVT. OF INDIA

# ABOUT IRMRA

Indian Rubber Manufacturers Research Association (IRMRA) was established in 1958, IRMRA has celebrated its Diamond Jubilee during the year 2018.

It is an autonomous body under the administrative control of Dept. for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry, Govt. of India.

IRMRA is well known for its expertise in the fields of Testing and Investigations, Research and Product/Material development, training & manpower development and consultancy services, and has diversified its activities in the new emerging areas of research.

## TEAM

Our team comprises of highly qualified scientists and technologists from reputed institutes with diverse experiences and possess core competencies in Testing, Failure analysis, Reverse Engineering, Design and Development of Rubber Products.

## IRMRA SERVICES

IRMRA provides services including testing, research and development, product and process development, failure investigation, inspection, training and consultancy services, short term and long term academic program and third-party inspection services, rubber and allied products.

IRMRA provides service for customers in four main verticals which are

### Research & Development

- Projects
- Products and Process Development
- Fundamental Research
- Application Development

### Testing & Data Analytics

- Raw Materials & Products
- Failure and Forensic Investigations
- Reverse Engineering
- Regulatory Testing
- Quality Assurance
- BIS Testing



### Technical Consultancy & Sustainability

- Trouble shooting
- Quality Inspection
- Energy and Environmental Audits

### Education and Training

- Academic Programmes
- Skill Development
- Short – term training
- Customized training

# OUR QUALITY POLICY

- To provide timely, innovative & world class services by adhering to management systems and procedures in compliance with ISO 9001 & ISO/IEC 17025 requirements.
- To undertake research & development and generate IP assets.
- To design, develop and validate the rubber & allied products as per the customer's requirement.
- To provide reliable, impartial and traceable testing and research based evaluation.
- To develop skilled human resource for rubber and allied industry by imparting training and academic program.
- To train and enhance the competency of the personnel and familiarize with the requirement of documented management system.
- Committed to comply and continuously improve the effectiveness of the management system, safety, morale and work environment within the organization.

## INDUSTRIES WE SERVE

- RUBBER PRODUCT MANUFACTURERS/ USERS
- DEFENCE AND NUCLEAR SECTOR
- AUTOMOTIVE SECTORS
- RAILWAY AND THEIR SUPPLIERS
- CUSTOMS, EXPORT & IMPORT OFFICE
- PAINT & ADHESIVE
- SEALANT
- RAW MATERIAL MANUFACTURERS
- STATE ROAD TRANSPORT UNDERTAKINGS
- REACH & ROHS TESTING

## QUALITY CREDENTIALS

- NABL Accredited
- ISO 9001 Certified
- BIS Recognized
- DGMS Accredited
- CEMILAC approved
- DGQA approved
- NABET accredited
- BMO accredited

## MISSION

- Establish as a recognized Centre for Rubber Industry for Testing and Evaluation of Raw Materials, products, Simulation and Modeling, Product Design Engineering and development.
- Provide R&D, technical, Quality Management Services, Audit and Support to Rubber Industries to up-grade their Products to compete globally.
- Support Automotive Tyre Manufacturers and Original Equipment Manufacturers with Advanced Testing Facilities for Evaluation, performance and Certification.
- Enhance the knowledge and skills among the people engaged in Rubber Industry.
- Provide Opportunities to Scientists, technologists and Engineers to pursue Academic and Multidisciplinary Research.

## VALUES VISION

Fairness  
Integrity  
Reliability  
Excellence

To be a premier R & D, Testing and Training organization, providing services to the Rubber Industry for Innovation and Research.

### Centre of Excellence for Tyre Testing



The Centre is fully equipped with truly world class facilities for testing of 2/3 wheeler, passenger car and commercial vehicle tyres as per National and International Standards.

### Material Testing and Research Centre



The centre is NABL accredited with wide range of tests under the scope and is equipped with sophisticated and advanced equipment to cater to the contemporary testing requirements as per national and international standard. It caters to a diverse range of clientele from various Govt. and private sectors.

### Sponsored Research and Product Development Centre



IRMRA's sponsored research and product development centre is well equipped with infrastructure for Research and product development. The product development facility is well equipped with latest processing equipment for lab trials, pilot and production trials making to centre unique to support the complete cycle of product development. The centre is focussed on Indigenization of various critical rubber products for Defence, Nuclear, Space research, Oil and many other sectors to promote "MAKE IN INDIA"

**Over 60 years of successful contribution to  
Rubber & Allied Industry**



## **Indian Rubber Manufacturers Research Association**

Plot No. 254/1B, Road No.16V, Wagle industrial Estate,Thane West - 400604

Email : [info@irmra.org](mailto:info@irmra.org). Phone: 022-6787-3200(19 lines) ,Telefax: 022-6787-3225,

Website : [www.irmra.org](http://www.irmra.org)



### **IRMRA – SOUTH CENTRE**

SriCity Trade Center, Sricity Dist -Chittore,  
Andhra Pradesh-517646 Email:[rr@irmra.org](mailto:rr@irmra.org)  
Mobile: 7275247393/8291404906  
Website: [www.irmra.org](http://www.irmra.org)



### **IRMRA – EAST CENTRE**

Rubber Park, P.O.- Dhulagarh, P.S.- Sankrail,  
Dist.- Howrah,West Bengal -711302  
Email: [db@irmra.org](mailto:db@irmra.org)  
Mobile:8197606600/8291404819  
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# IRMRA - SRICITY



IRMRA - Sri City is focussed on testing and investigation of Rubber products as its major activity. The South Centre facility includes sophisticated and latest instruments and is capable of carrying out tests in both Mechanical and Chemical domains. Our services include

- ✓ Raw Material Testing & Evaluation
- ✓ Rubber Samples and Product Testing
- ✓ Product Development & Industrial Consultancy
- ✓ Training & Skill Development
- ✓ Academic / Sponsored Research



## Accreditation

The centre is ISO/IEC 17025:2005 accredited in the field of Testing for Chemical and Mechanical disciplines for Rubber and allied products.

## Facilities Available

### Chemical Lab

- ✓ TGA
- ✓ DSC
- ✓ FTIR
- ✓ GCMS-MS
- ✓ ICP-OES

### Physical Lab

- ✓ Mooney Viscometer
- ✓ MDR
- ✓ UTM
- ✓ Digital Hardness Tester
- ✓ Ozone Chamber
- ✓ Hardness Tester



## Tests under NABL scope

TEST NAME	INSTRUMENTS USED
Hardness (Shore A)	Digital Hardness Tester & Shore A Analog Durometer
Tensile Strength, Elongation at Break & Tension Modulus	UTM
Tear Strength	UTM
Mooney Scorch & Mooney Viscosity	Mooney Viscometer
Torque Min, Torque Max, Optimum Cure time, Scorch Time	MDR
Dimension & Tolerance, Finish and Stretch test	Ruler and Vernier Calliper
Composition analysis of Rubber Products like Low boiling content, Polymer content, Organic and Carbon black content & Ash content	TGA
Glass Transition & Melting Point of Rubber	DSC
Polymer Identification by FTIR	FTIR

### Contact Details

#### INDIAN RUBBER MANUFACTURERS RESEARCH ASSOCIATION – SOUTH CENTER

No. 2680, Central Expressway, Sricity, Tirupati District, Andhra Pradesh - 517646  
Email – [pv@irmra.org](mailto:pv@irmra.org) Mobile – +918655095345

#### IRMRA – SAMPLE COLLECTION CENTER

No. 129, 2nd Mainroad, Rajiv Nagar, Pallikuppam, Chennai, Tamil Nadu – 600077  
Email : [mktg@irmra.org](mailto:mktg@irmra.org) Mobile : +919361535780  
Website: [www.irmra.org](http://www.irmra.org)

# IRMRA East Centre

State-of-the Art Testing Facilities for Rubber and Allied Material Testing



IRMRA – East Centre is focussed on testing and investigation of Rubber products as its major activity. The East Centre facility includes sophisticated and latest instruments and is capable of carrying out tests in both Mechanical and Chemical domains.

## Our services include

- ✓ Raw Material testing & evaluation
- ✓ Rubber samples and product testing
- ✓ Product development & Industrial consultancy
- ✓ Training & Skill development
- ✓ Academic / Sponsored Research
- ✓ Reverse Engineering and Bench-marking



## List of Equipment / Facilities

- ✓ Thermogravimetric Analyzer (TGA)
- ✓ Differential Scanning Calorimeter (DSC)
- ✓ Fourier Transform Infra Red Spectroscopy (FTIR)
- ✓ Gas Chromatography Mass Spectroscopy (GCMS) with Pyrolyzer
- ✓ Inductively Coupled Plasma (ICP)
- ✓ Mooney Viscometer
- ✓ Moving Die Rheometer (MDR)
- ✓ Universal Testing Machine (UTM)
- ✓ Wet Lab with Fume Hood
- ✓ De-Mattia Ross Flex Tester
- ✓ Shore A & D Hardness Tester



**Contact:** Dr. D. Basu , Asst. Director & Center Head

**Email:** [db@irmra.org](mailto:db@irmra.org) | **Mob:** +91 81976 06600  
[info@irmra.org](mailto:info@irmra.org)

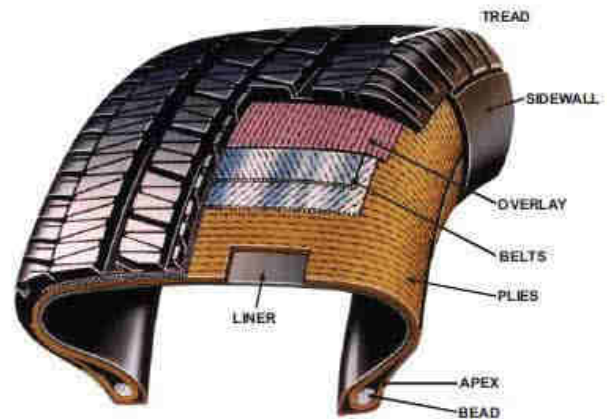






# Centre Of Excellence For Tyre Research, Testing and Certification

ISO 17025/NABL ACCREDITED & BIS, TAC APPROVED



## About The Centre

The Centre is fully equipped with truly world class facilities for testing of 2/3 wheeler, passenger car and commercial vehicle tyres as per National and International Standards.

Centre of Excellence for Tyre Research, Testing and Certification is engaged in Testing and Certification of Automotive Tyres received from the various national and international tyre manufacturers, automotive OEMs, Customs, BIS, SRTUs, Industrial sectors.

Apart from testing, the centre is also equipped with facilities for pursuing the research on tyre technology, tyre materials and Failure Investigation of Automobile and Military Aircraft Tyres.

The unique Rolling Resistance test facility is being utilized by major automotive OEMs and leading tyre manufacturers in order to demonstrate the fuel efficiency of their tyres used in automotive vehicles.

The centre is operated by highly skilled & experienced team to assure the quality & reliability of services .

Since inception more than 5000 tyre sizes have been tested for more than 100 customers



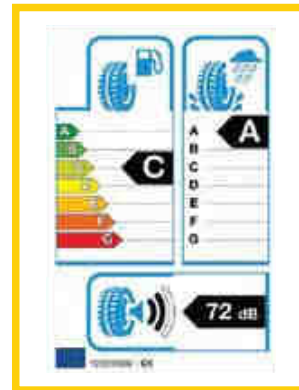
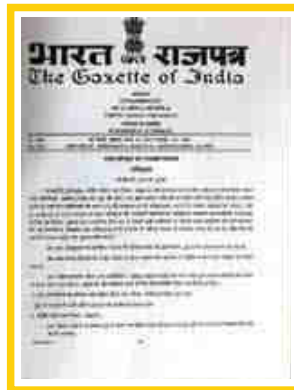
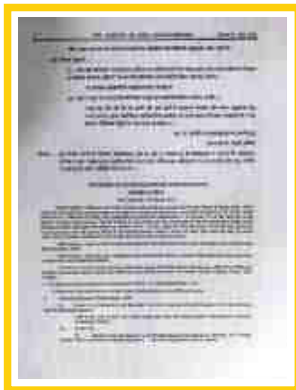
## ➤ Type Approval Certificate as per CMVR /AIS 037

To extend the services to tyre manufacturers and automotive OEMs, Centre of Excellence for Tyre Research, Testing and Certification is now notified under Rule 124 of CMVR for type approval certification of tyres and other rubber components by Ministry of Road Transport and highways , Government of India w.e.f. 15th March 2017.

## ➤ Candidate Laboratory status for Rolling Resistance Measurement as per ECE R117

Centre of Excellence for Tyre Research, Testing and Certification has got the status of Candidate laboratory Alignment for rolling resistance measurement as per Regulation (EC) 1235/2011 and 1222/2009 and test procedure described in ECE Regulation No 117 w.r.t 15th May 2018.

This alignment has made this centre to become the First Aligned Indian Govt. Test Agency for measurement of rolling resistance of the all three category of tyres (C1,C2,C3 ) as per ECE R117.



## ➤ Tyre Research Facilities

- Cut tyre analysis
- Reverse engineering
- Compound Evaluation & development
- Failure analysis

## ➤ Tyre Related Tests

- Endurance Test.
- High Speed performance test
- Rolling Resistance test
- Plunger /Tyre Strength test
- Bead unseat test
- Radial, Lateral, Tangential, Cornering stiffness Test
- Digital foot print test with pressure distribution
- Dynamic growth test
- Tyre Shearography test
- Dimension test
- Tyre Balancing test
- Static /Dynamic loaded radius test

## ➤ Tyre Testing Standards

- BIS standards
  - IS15627 : 2005 : For 2 & 3 Wheeler tyres
  - IS 15633: 2005 :For passenger car tyres
  - IS 15636 : 2012 :For commercial vehicle tyres
- ECE
- FMVSS (U.S.)
- GSO (Gulf Countries). SNI(Indonesia)
- IN Metro (Brazil)
- CCC (China)
- ISO
- SAE
- OE specific standards





## Passenger /Light Truck Tyre Endurance Machine:

- 2 Station Type
- Max. Load : 2500 kg
- Max. Speed : 350 km/hr
- Deflected radius .
- Dynamic loaded radius checking facility



## Truck Tyre Endurance Machine:

- 2 Station Type
- Max. Load : 10000 kg
- Max. Speed : 200 km/hr
- Deflected radius
- Dynamic loaded radius checking facility



## Rolling Resistance Machine

- Torque method
- 2 Station Type
- Max. Load : 10000 kg
- Max. Speed : 350 km/hr
- Deflected radius .
- Dynamic loaded radius checking facility



## Tyre Shearography Machine

- Advanced computerized non destructive inspection Technology.
- Capable of finding defects such as faulty repair, inner liner separations, broken cords, porosity and voids, foreign material.
- Capable of giving scans of different regions like crown, sidewall, shoulder, bead, inner liner.



## Universal Testing Machine

- Plunger Test: Carcass strength is checked against the min. specification. Plunger rods (8, 19, 32, 38 mm Dia.) are used.
- Bead Unseat Test: For tubeless passenger car tires, bead unseat force is checked against the min. specification with standard fixture.
- Static Loaded Radius: Min. distance from centre of tyre rim assly. to the ground under specified load & inflation conditions.
- Radial Stiffness: Stiffness in radial direction.
- Lateral Stiffness: Stiffness in lateral direction.
- Tangential Stiffness: Stiffness in tangential direction.
- Cornering Stiffness: Stiffness in cornering angle.
- Foot print test: Digital Footprint with Land & sea calculations as well as pressure distribution in contact path.





## ▶ Tyre Profilometer

- Computerized dynamic growth profile facility.
- Max. Speed : 300 km/hr
- To check maximum growth of tyre at maximum speed due to effect of centrifugal force against theoretical envelop curve.



## ▶ Tyre Uniformity Machine:

- Radial force and radial force variation
- Lateral force and lateral force variation
- Conicity ,Plysteer
- Radial and lateral runout



## ▶ Tyre Cutting Machine

- Cut tyre analysis for motorcycle, three wheeler, passenger car, commercial vehicle tyre.
- Dimensions of different components ,gauges, construction, any manufacturing defect.
- Reverse engineering /Compound Evaluation &
- Failure analysis.



## Centre Of Excellence For Tyre Research, Testing and Certification

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## Sponsored Research and Product Development Centre ISO : 9001 Certified



### About The Centre

IRMRA's sponsored Research and Product development centre is well equipped with infrastructure for Research and product development. The facility includes the latest processing equipment for lab trials, pilot and production trials to support the complete cycle of product development. The centre is focused on Indigenization of various critical rubber products for Defence, Nuclear, Space, Oil and many other sectors and strongly supports the "MAKE IN INDIA" initiative.

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STATE OF THE ART FACILITY

Excellence achieved with legacy of 60 years



# Infrastructure



## Processing facilities

- Two roll mill
- Brabender plasticorder pl 2200 – 350 gms capacity
- Banbury - 35 kg capacity
- Twin screw extruder with gravimetric feeders
- Hot feed extruder
- Cold feed extruder
- Calendaring (3 roll)
- Labscale Intermix (1.5 Kg capacity)



## Molding

- Rubber injection molding
- Rubber Compression Molding
- Plastic Injection Molding
- Plastic Compression Molding
- Autoclave curing

## Latex processing

- Planetary Mixer (for Latex)
- Latex Thread Extrusion Unit
- Dipping Units for Latex Good

## Tools and Fabrication

- CNC Machine
- Surface Drilling Machine
- Lathe & other supporting facilities



# Technology and Products Developed



**Articulate Booting**



**Tong Booting**



**Rubber Gauntlet**



**Silicone Rubber Moderator Block**



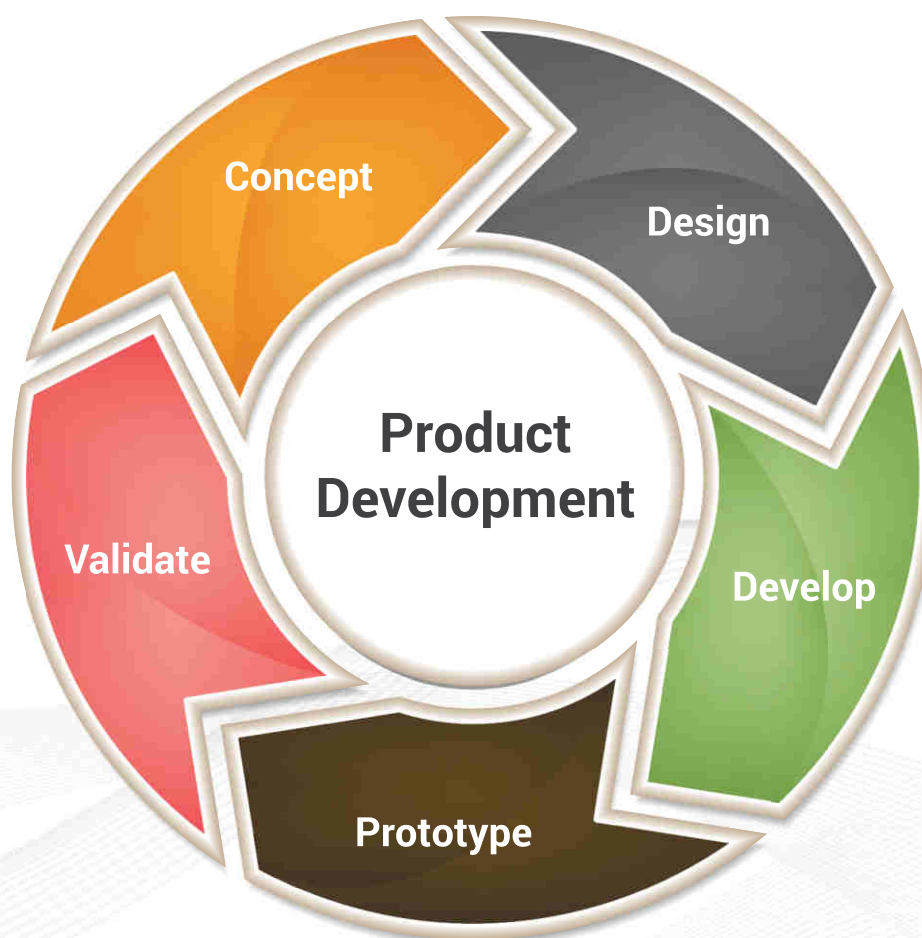
**Various Products developed for defence**



*The centre is focussed on Indigenization of various critical rubber products for Defence, Nuclear, Space ,Oil and many other sectors and undertakes Sponsored Contract Research and Product Development activities. The centre has indigenized more than 3000 critical products.*



**Helping Rubber World in Building Better Future**



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# Regulatory Testing Facility

**IRMRA is well equipped with advanced test facility to cater to the regulatory test requirements**

- REACH
- ROHS
- Nitrosoamine
- Poly Aromatic Hydrocarbons (PAH)
- Phthalate Ester
- US FDA – Food Grade testing



## Facilities Available

- GCMS- MS for qualitative and quantitative analysis of various chemical ingredients
- GC – FID for qualitative and quantitative analysis of various chemical ingredients
- ICP - AES for quantitative analysis of inorganic elements
- FTIR/ATR for identification of chemical ingredient
- Various Chemical Testing for qualitative and quantitative analysis

N-Nitrosodimethylamine (CAS No- 62-75-9)  
N-Nitrosomethylethylamine (CAS No – 10595-95-6)  
N-Nitrosodiethylamine (CAS No – 55-18-5)  
N-Nitrosopyrrolidine (CAS No – 930-55-2)  
N- Nitrosomorpholine (CAS No. 59-89-2)  
N-Nitrosodipropylamine (CAS No-621-64-7)  
N-Nitrosopiperidine (CAS No 100-75-4)  
N-Nitrosodibutyl amine (CAS No 924-16-3)  
N-Nitrosodiphenylamine (CAS No 86-30-6)



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**IRMRA**

## **Material Research and Product Testing Centre**

For your need on Testing, R&D Services on Rubber & Allied Products

### **About The Centre**

The centre is NABL accredited with wide range of testing under the scope and is equipped with sophisticated and advanced equipment to cater to the contemporary testing requirements as per national and international standards. The centre caters to the testing need of more than 1000 customers from across the country and abroad. It operates in two verticals of chemical & analytical lab and physical & product testing lab. The centre has established and validated its credential by participating in various international proficiency test programme and caters to a diverse range of clientele from Govt. and private sectors.



**TESTING, EVALUATION & CERTIFICATION, FAILURE ANALYSIS,  
REVERSE ENGINEERING, REGULATORY TESTING, PRODUCT VALIDATION**

**STATE OF THE ART FACILITY**

Excellence achieved with legacy of 60 years

# Chemical and Instrumentation Lab



## Overview of the Services Offered

- Testing and Evaluation – Raw materials, In process & finished rubber products
- Chemical Testing of Rubber and Rubber Products
- Food Grade Testing
- REACH & ROHS Testing
- Instrumental Methods of Analysis
- Microstructure of SBR,PBR and Styrene content
- Low Temperature Tests
- Sealant Testing - Polysulphide, Silicone and Polyurethane Sealants
- Miscellaneous Chemical Tests & Evaluation of Rubber Chemicals
- Flammability Testing
- Latex Testing



## State Of The Art Facility

**FTIR/ATR** for all types of material including polymer identification.

**TGA** for compositional analysis , degradation temperature, volatile loss of rubber and allied material

**DSC** for determination of Tg, Tm, Cure Kinetics, crystallinity of plastic material, Purity of rubber chemicals

**ICP** for elemental analysis: More than 23 elements can analyzed both qualitatively and quantitatively (PP8) apart from hazardous elements like As, Pb, Hg, Cd, Cr

**GPC** (Gel permeation Chromatography) : Molecular weight determination of raw rubber and resins.

**GC-MS-MS** for identification of antioxidants, accelerator, plasticizers and polymers in rubber, Identification of solvents in paints and adhesives & determination of hazardous components in all materials for REACH & ROHS compliance

**SEM-EDX** for qualitative identification of element present in polymer matrix; characterization of polymer nanocomposites, morphological studies of polymer blends and failure analysis

**GC-FID** for PAH (polycyclic aromatic hydrocarbons, nitrosoamines, phthalates, purity of chemicals and solvents.

**Low Temperature Tests:** Low temperature brittleness and flexibility tests in gaseous medium, Liquid Media (methanol and dry ice as cooling medium) ,Low temp Retraction : TR10, TR30,TR50 and TR 70,

Low temperature rigidity modulus . T2,T5,T10 and T100.

Miscellaneous chemical tests for rubber raw materials.

Flammability testing as per national and international standard





# Physical and Product Testing Lab

## Overview of the Services Offered

- Physical Testing of Rubber and Rubber Products
- Electrical Testing
- BIS approved List of Products
- Abrasion Testing
- Hose Testing
- Condom Testing
- Conveyor Belt Testing
- Mount Testing
- Testing of complete ASRTU specification
- Toys Testing
- Tube Testing
- Many more products testing.....



## Extended Facility for Complete Testing of Rubber and Allied Product Testing

- Rubber Process Analyzer (RPA)
- Rheometer (MDR, ODR)
- Universal Testing Machine with Extensometer
- Mooney Viscometer
- Auto Hardness Tester
- Din Abrader
- Air Permeability Tester
- Taber Abrader
- De-mattia Flexing Machine
- Ross Flexing Machine
- Hose Bursting Machine
- Ozone Chamber
- Dunlop Tripsometer
- HV Tester Million Megahohms
- Ageing Ovens
- Miscellaneous Fixtures and Customized Testing Facility





# Material Research and Product Testing

ISO/IEC 17025 (NABL) ACCREDITED



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# Hose Testing Facility

## Accreditations

- NABL Accredited
- BIS Recognized
- DGMS Approved

## Products that can be tested

- LPG Hoses
- Mines Hoses
- Automotive Hoses
- Other Miscellaneous hoses and tubes

## Facilities Available

- UTM for mechanical properties and Adhesion test
- Burst pressure and Proof pressure testing
- Cryogenic chamber for Low temperature properties
- Air ovens for high temperature test
- Flammability test for various hoses
- Resistance to various chemicals
- Abrasion Testing Facility
- Electrical testing
- Permeability Testing
- Ozone Testing



## List of Standards

IS-446 : 1987 : RUBBER AIR HOSE

IS-5894 – 2005 : RUBBER HOSE FOR SAND & GRIT BLASTING

IS: 9573 – 2012 SPECIFICATION FOR RUBBER HOSE FOR LPG

IS-10733 – 1983 : ELECTRICALLY BONDED ROAD & RAIL RESISTANT TO PETROLEUM PRODUCTS

IS-10908 – 1991: FLEXIBLE RUBBER TUBING FOR LIQUEFIED PETROLEUM GAS

IS-12585 – 1988 : SPECIFICATION FOR THERMOPLASTIC HOSES (TEXTILE REINFORCED) FOR WATER-GENERAL PURPOSE

BCS -174-1992 : SPECIFICATION FOR TWO WIRE BRAID REINFORCED RUBBER HOSE

EN: 856 - 1996 : RUBBER HOSE AND HOSE ASSEMBLIES - RUBBER-COVERED SPIRAL WIRE

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# Conveyor Belt Testing

## Standards and Specification

- > IS 1891 Part I to V
- > IS 3181
- > DIN 22102,
- > DIN 22103
- > AS 1332
- > SABS 1173
- > CAN/CSA-M422-M 87
- > ISO 340

## Test Facilities Available

- > Thickness measurement
- > Full belt Tensile strength
- > Full belt Elongation
- > Ageing test for cover rubber
- > Adhesion
- > Oil resistance
- > Troughability
- > Tear strength
- > Electrical resistance
- > Flame test
- > Drum friction test
- > Cord pitch
- > Cord pullout strength
- > Propane Gallery
- > Ozone Resistance Test



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# Plastic Processing and Testing Lab

## Services Offered

- Characterization of plastic material by FTIR, DSC, TGA
- Mechanical Testing
- Processibility test
- Mixing and Molding

## List of Equipement

- Injection Molding Machine
- Plastic Compression Molding Machine
- Izod Impact Tester
- Twin Screw Extruder
- UTM with extensometer
- Melt Flow Index tester
- Cryogenic chamber
- Chemical Testing



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# NABL ACCREDITED Toy Testing Lab



Ensuring that the toys are safe for children and its practice is the primary essence of 'TOY TESTING'. It is usually done by ensuring the implementation of set standards. In India, it is compulsory for the commercial toy manufacturers and importers to be able to pass safety tests in order to be sold to the public.

## IS 9873 : 2017 / ISO 8124 : 2014 : Safety of Toys

**Part 1:** Safety Aspects Related to Mechanical and Physical Properties

**Part 2:** Flammability

**Part 3:** Migration of Certain Elements

**Part 7:** Requirements and Test Methods for Finger Paints

**Part 9:** Certain Phthalates Esters in Toys and Children's Product

## Facilities Available

- ✓ Mechanical and Physical testing
- ✓ Stability and Durability
- ✓ Small Parts Choking Parts Hazards, Sharp Points and Edge Assessments
- ✓ Impact, Torque, Tension and Compression Test
- ✓ Flammability of Solids and Flashpoints of Volatile Materials
- ✓ Toxics in Packaging Testing
- ✓ Anti-microbial Effectiveness
- ✓ Quality and Defect Inspection Services



## Contact Details

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**NABL ACCREDITED**

# Condom Testing Facility



## Regulations and Standards for Condom Testing

- ✓ The primary international standard is ISO 4074:2002
- ✓ The WHO specification uses ISO standards as a foundation for its guidelines on purchasing condoms for health promotion. The ISO and WHO specifications for condoms include parameters for:
  - Accreditation for laboratories that tests condoms
  - Procedures for the tests
  - Materials, shelf life and stability
- ✓ Acceptable quality levels (AQLs), or the number of condoms that can be defective in each batch



## Major Tests Accredited Under NABL (TC-7719)

- ✓ Dimensions
  - i) Length (ii) Width (iii) Thickness
- ✓ Bursting Volume
- ✓ Bursting Pressure
- ✓ Oven Treatment
- ✓ Packing Test
- ✓ Total Lubricant Content
- ✓ Water Leak Test -Condom
- ✓ Tensile Strength and Elongation at Break



## Indian Rubber Manufacturers Research Association

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