INDIAN RUBBER MANUFACTURERS RESEARCH ASSOCIATION

QUALITY POLICY

- **To provide Timely, Innovative & World Class services by systematically adhering to Quality Management Systems and Procedures.**
- **To design, develop and validate the Rubber Products as per requirement of our customers.**
- **To provide Reliable, Dependable and Traceable testing & evaluation services to our customers.**
- **To enhance the Technical Competency of rubber and allied products manufacturers and end users by imparting training.**
- **To strive to continuously improve Safety, Morale and Work Environment of all our stake holders by implementing pertaining international standards like QMS, EMS, OSHAS including ISO 17025 – 2005.**

Dr.P.Thavamani
Director

MEMBERS OF THE GOVERNING COUNCIL: 2011-12

PRESIDENT
Mr. Onkar S. Kanwar
Chairman & Managing Director,
Apollo Tyres Limited,
7, Institutional Area,
Sector 32, Gurgaon – 122001.

GOVERNMENT OF INDIA
Joint Secretary, DIPP, New Delhi
Deputy Secretary, DIPP, New Delhi
Under Secretary (Finance), DIPP, New Delhi

COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH (CSIR)
Dr.M.G.Kulkarni, Head, Polymer Science & Engineering Unit,
National Chemical Laboratory
Pashan Road,Pune – 411 008.
mg.kulkarni@ncl.in kulkmohan@gmail.com
Tel. No. 020-25902178

GOVT. OF MAHARASHTRA
Mr.Pramod Satam,
Joint Director of Industries
Kokan Division, MIDC Office Complex Building
Wagle Industrial Estate
Thane (Near Mulund Checknaka)-400 604
dirokonkan@maharashtra.gov.in
25828504,22026955

BUREAU OF INDIAN STANDARDS (BIS)
Mr.P.K.Gambhir, Scientist G (Technical) – Principal Member
Bureau of Indian Standards
Manak Bhavan,9 Bahadur Shah Zafar Marg,
New Delhi – 110 002
Tel- 011-23231120

Dr.(Smt) Vijay Malik, Scientist 'E' & Head (PCD) – Alternate Member
Bureau of Indian Standards
Manak Bhavan, 9 Bahadur Shah Zafar Marg,
New Delhi – 110 002
vijay.malik@bis.org.in
Tel – 011-23235432

RUBBER BOARD
Dr.James Jacob,Director of Research,
Rubber Research Institute of India
Rubber Board
Kottayam – 686 009
james@rubberboard.org.in
0481-2353311

CENTRAL INSTITUTE OF ROAD TRANSPORT (CIRT)
Brig. Rtd. G.Dinshaw
Director,
Central Institute Of Road Transport(CIRT)
Post Box No. 1897,
Pune Nasik Road,
Bhosari, Pune- 411 026
director@cirtindia.com
Tel- 9520-27125177

ALL INDIA RUBBER INDUSTRIES ASSOCIATION (AIRIA)
Mr.Yogen S. Lathia, Director,
Lathia Rubber Mfg. Co. Pvt. Ltd.
Sakinaka, Kurla-Andheri Road
Mumbai – 400 072
yogen.lathia@lathia.in
mob-9821097366
28519140/144

Dr.R.K.Matthan,
KA Prevulcanised Latex Pvt. Ltd.,
2-B, Regent Place,New 20 (Old 151)
Habibullah Road, T. Nagar
Chennai – 600 017.
rkmatthan@gmail.com ; matthan@vsnl.com
Mob:- 09840025972

AUTOMOTIVE TYRE MFRS ASSOCIATION (ATMA)
Mr. Rajiv Budhraja, Director General – Principal Member
Automotive Tyre Manufacturer's Association,
PHD House (4th Floor),
Opp. Asian Games Village,
Siri Institutional Area, New Delhi-110 016.
rajiv@atmaindia.org
Mob-09810555011
Tel-011-26851187

Mr.T.Chakravarty, Secretary General, – Alternate Member
Indian Tyre Technical Advisory Committee (ITTAC)
PHD House (4th Floor),
Opp. Asian Games Village,
Siri Institutional Area,
New Delhi-110 016.
Mob-09810498181
ittac1@gmail.com

PAID MEMBERS FROM INDUSTRY
Mr.G.A.Nijhawan,
Kwality Polymers Pvt. Ltd,
Plot No.A-471
Road No.28
Wagle Industrial Estate
Thane – 400 604.
contactus@kwalitypolymers.com
Mob:- 9820292285
Tel-25820342

Mr.Niraj Thakkar,
Precision Rubber Industries Pvt Ltd.,
C-45, Road No.25, Wagle Estate, Thane 400 604.
nit@precitex.com ; nitpripl@gmail.com
mob:- 9820700069
Tel.25821778/25834360

IRMRA'S DIRECTOR (EX- OFFICIO)
Dr.P.Thavamani, Director

INVITEES FOR RESEARCH & DEVELOPMENT
Prof. A.K.Bhowmick,
Director,
Indian Institute of Technology Patna
Navin Government Polytechnic Campus,
Patliputra Colony, Patna 800 013
director@iitp.ac.in anilbhowmick@gmail.com,
anilkb@rtc.iitkgp.ernet.in
Tel.:- 0612-2277380,2552001

Dr. D.K.Setua, Additional Director,
Govt. of India,
Ministry of Defence,
Defence R &D Organization,
Defence Materials & Stores,
Research & Development Establishment,
D.M.S.R.D.E. Post Office, G.T.Road,
Kanpur – 208013. (U.P.)
dksetua@rediffmail.com
0512-2402360/2451759

Dr.Arup Chandra,
Apollo Tyres Limited,
Limda Village,Wagodia Taluka,
Dist. Vadodara – 391760
arupkumar.chandra@apollotyres.com
Mob:- 09879012233

INVITEES FOR INDUSTRY LIAISON
Dr.W.Millns,
Triveni Rubber,
8, Punjani Indl. Estate,
Khopat, Thane – 400 601
william.millns@trivenirubber.com
Mob-9320804050

Mr. Rajendra V.Gandhi,
Managing Director
Gujarat Reclaim & Rubber Products Ltd.,
510, "A" Wing, Kohinoor City Commercial – I ,Kirol Road, Off. L.B.Shastri Marg,
Kurla (W). Mumbai – 400070
rgandhi@grrpl.com
Mob-9820153094

Mr.D.J.Bharucha,
Bhimrajka Impex Limited (BIL)
184-B Maker Tower 'E',
18th Floor, Cuffe Parade,
Mumbai - 400 005.
bharucha@bhimrajka.com
Mob- 9820295609

Mr. M.F.Vohra,
Zenith Industrial Rubber Products Pvt. Ltd.,
A-2, Parekh Mahal, Veer Nariman Road,
Mumbai - 400 020. INDIA
Tel: +91-22-2288 5888
mfvohra@zenithrubber.com

Main Office:
Indian Rubber Manufacturers Research Association
Plot No. 254/1B, Road No. 16/V
Wagle Industrial Estate, Thane (W) – 400 604
Tel.: (022) 25811348/25803753 / 25834650/51/52
Fax: 25823910
Email: rubberin@bom7.vsnl.net.in
Website: www.irmra.org

Status of Institute:
Registered under the Societies Registration Act XXI of 1860
Regn. No.S.1199, Dt. 13.1.1958

Bankers:
State Bank of India
Wagle Industrial Estate Branch
Thane – 400 604

Axis Bank Ltd.
Dhiraj Baug, LBS Marg,
Near Hariniwas Circle
Thane (W) – 400 602

Auditors:
M.M.Nissim & Co.,
Chartered Accountants
Barodawala Mansion,
Dr.A.B.Road, Worli
Mumbai – 400 018

Vision :

To be a committed world class rubber and allied material research, development, testing and training centre with innovative & value added service to customers

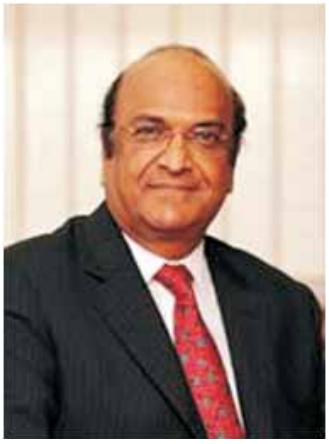
Mission :

To serve the rubber & allied industries to fulfill their scientific & technological requirements in order to improve their global competitiveness.

Values:

- Fairness
- Integrity
- Reliability
- Excellence

PRESIDENT'S MESSAGE



Good Morning Ladies and Gentlemen!

It gives me immense pleasure in welcoming you all to the 53rd Annual General Meeting of Indian Rubber Manufacturers Research Association (IRMRA). The Annual Report containing Director's Report and the Auditor's Annual Account Report for the financial year ending March 31, 2012 has been circulated to you and with members' consent, I shall consider the same as read.

During the financial year 2011-12, the growth in the Indian economy slowed down perceptibly. GDP growth was around 6.5% compared to 8.4 % recorded in 2010 – 11. This was, to an extent, due to fragile recovery in global economy and the uncertainties, and domestically, the lower growth was a result of a combination of many factors. Consumer and investment demand were adversely affected by high inflation and interest rates. The widening fiscal deficit, unfavourable conditions in the external sector and weakening Indian currency added to difficulties.

On the domestic front, tight monetary policy pursued by Reserve Bank of India (RBI) to contain inflation, resulted in steep increase in interest rates, which had adverse effect on economic growth. To add to the woe, the Indian rupee witnessed a severe volatility in foreign exchange rates, which substantially impacted the cost of imported raw material, capital equipment and the spare parts.

The prospects of rubber industry depend to a large extent on the growth of automotive sector. During the FY 2011-12, the automotive sector considerably slowed down, and passenger car segment grew by merely 2.7%. Nevertheless, IRMRA team continued its relentless drive towards supporting the rubber industries by testing and certification, training, consultancy, augmentation of array of testing services, strategic planning and execution of research and development projects. This helped in containing the impact of economic slowdown on its own income growth.

I would like to congratulate the team IRMRA for their service to rubber industries and record my sincere appreciation for all our Governing Council Members, Government Nominees and Officials from the Ministry of Commerce & Industry for their valuable contribution to IRMRA's success over the years.

Dr. Raghupati Singhania
President,
Indian Rubber Manufacturers Association.
Vice Chairman and Managing Director,
J K Tyres & Industries Ltd.

DIRECTOR'S ANNUAL REPORT 2011-12

Dear Members,

We are pleased to present Indian Rubber Manufacturers Research Association's (IRMRA) 53rd Annual Report for the year 2011-12.

Although over the last 50 years, IRMRA has expanded and diversified its activities, specially for last two years IRMRA witnessed a robust performance in all the areas of its presence, and there by it has become an unique R&D 'Centre of Excellence' at par with any internationally renowned Institute of repute in the World.

Despite economical slow down across the business witnessed during the year 2011-12, IRMRA recorded a robust growth of 16 % in the income This has become possible because of our focus on revenue generating activities particularly developing new and advanced test methods, faster turn out of testing and timely delivering proper test reports, prompt execution of applied research, design and development work received from various public and private sectors. In some of the areas, the testing capability and capacity were augmented by strategically co-operating with selective NABL approved laboratories and other testing agencies. The enhanced marketing efforts including offering of upfront discount in all the activities of IRMRA for the members, enabled us to increase the customer base, apart from winning their loyalty towards IRMRA. Every opportunity has been used to show case and demonstrate our technical capabilities not only in India but also in the Asian region. Thus, our strategic planning, customer networking, and efficient execution, helped us to contain the operational cost and limit the impact of spiraling manpower, input material, consumable and spare parts cost on the excess of income over the expenditure to a large extent. Hence, in the balance sheet, we could generate a record growth of 123 % in reserves and surplus over the last year. During the current year IRMRA earned a sizable income from overseas by extending its services to many multinational rubber and rubber product manufacturers in the globe.

1) THE PERFORMANCE OF NON-TYRE TESTING DIVISION:

The non-tyre testing division mainly caters to the needs of non-tyre products and material testing mainly for small and medium enterprises (SMEs). Since the overall economic downtrend prevailing across the country due to spiraling input cost, interest rates, foreign exchange

fluctuation, the SME sectors are very badly affected which inturn had adverse effect on the performance of Non-tyre testing division. However, our customer service cell (CSC) mainly focused on developing new and advanced test methods, additional test facilities, and imparting special skill and knowledge acquiring technical inputs and testing standards so that we could counter the adverse impact of economic slowdown. Accordingly, this division developed the following new test methods for serving the SME sectors effectively.

1.1 Compressive stress Relaxation as per ISO 3384.

The stress decay of the viscoelastic rubber vulcanizates at defined stress, and environmental conditions such as temperature, contact medium, additives, etc. is monitored continually and the data used for predicting the suitability of rubber vulcanizate for sealing applications and also to estimate the service life of such material under defined working conditions.

1.2 Volumetric expansion test for Rubber hoses as per EN -ISO 6083.

The automotive power steering hoses should have the volumetric expansion within the defined limit and hence, it is very important test for qualification of such hoses.

Apparatus has been fabricated in-house to carry out volumetric expansion test as per the standard EN ISO 6083

1.3 Propane Gallery Test for Conveyor belting for Coal Mine application as per Canadian standard.

This test is carried out to determine the flame resistance of conveyor belts generally used in underground coalmines.

A conveyor belt sample of two lengths is laid on a frame and exposed to flame using propane gas as fuel under defined pressure and air flow rate for specified duration. The extent of belt damage at the end of testing is measured and based on the observation the belt is certified as flame resistant.

1.4 REACH and PAH Compliance Testing and Certification.

As per European Unions'(EU) REACH (Registration, Evaluation, Authorization and restriction of Chemicals), all the phthalates which are commonly used plasticizers in Nitrile (NBR), Poly vinyl chloride (PVC), and NBR -PVC blends, and phosphates plasticizers are classified under substance of very high concerns (SVHC). Another EU Directive restricts the usage of aromatic oil with Polycyclic Aromatic Hydrocarbon (PAH).

Both REACH and PAH compliance are very much required for the rubber products exported to EU and IRMRA has successfully developed test method for testing and certification of rubber products in accordance with these regulations.

1.5 LPG hose low temperature bending Tests as per IS -9573.

The LPG hoses being used in domestic appliances as well as in gas filling station should meet the low temperature flexibility test as per IS 9573 and these hoses are under the compulsory ISI marking scheme and hence, this test comes under mandatory requirement.

IRMRA has created this unique facility and is being periodically used for testing of LPG hoses for the purpose certification and monitoring the quality of hoses available in the market.

1.6 Shear Fatigues test for Foam as per IS-7888-1975.

The foams used in passenger vehicles, and train seats and berths are tested for fatigue performance as per Indian Standard IS – 7888.

The facility created is being regularly used by various state road transport corporations and the foam manufacturers.

2) THE PERFORMANCE OF "THE CENTRE OF EXCELLENCE FOR TYRE TESTING AND CERTIFICATION"

The centre of excellence for tyre testing and certification has been working round the clock as model section within IRMRA. It has been rendering testing and certification of two/ three wheeler tyres, passenger car tyres, and bus and truck tyres as per the corresponding Indian Standards (IS) for the purpose of getting ISI marking license from Bureau of Indian Standard (BIS) in compliance with the "Quality Order" enforced from May 2011 by the Department of Industrial Policy and Promotions (DIPP), Ministry of Commerce and Industries, Government of India. In order to augment the service and revenue, this division constantly striving to extend the array of testing services and accordingly, this centre started doing the following testing and analysis services.

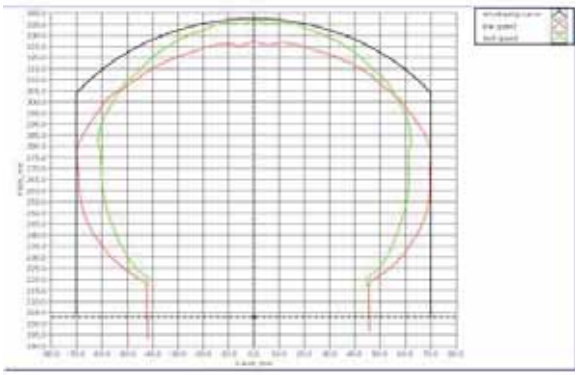
2.1 Shearography:

Shearography is an excellent instrument to detect even a traces of defects such as foreign matter, flaws and deboning at interfaces between rubber to ply, or ply to ply. This technique is used for testing of pneumatic tyres, civilian & fighter aircraft tyres and also for evaluation of the condition of used tyre for assessing it's suitability for retreading.

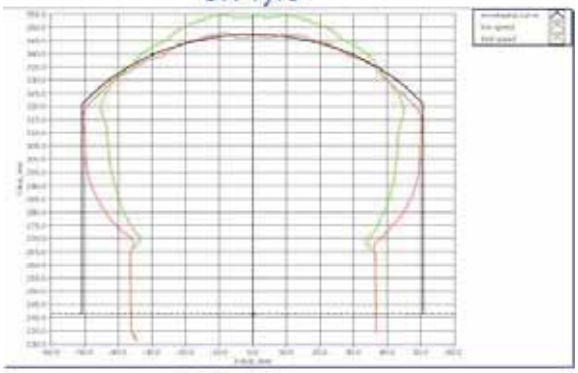
Our facility has been utilized for successful indigenous development of tyre for Su 30 fighter aircraft tyres.

2.2 Dynamic growth measurement of two wheeler tyres.

This test method shall apply to the motorcycles tyres having speed > 150 kmph. It is intended to determine maximum growth of the tyre which is due to the effect of the centrifugal force at maximum permissible speed. This facility which is available only with us is getting utilized by national & international tyre companies apart from other testing agencies.

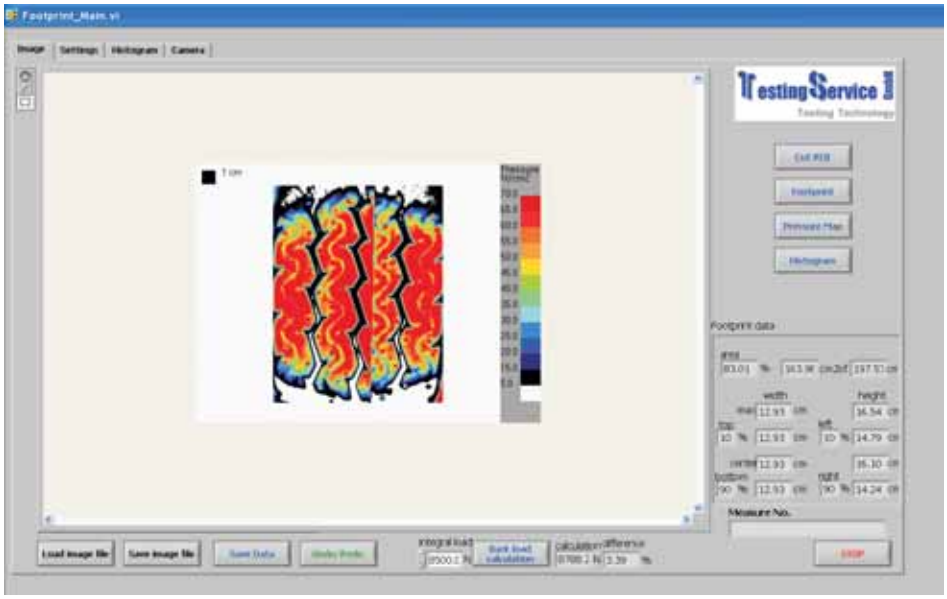


OK Tyre



Failed Tyre

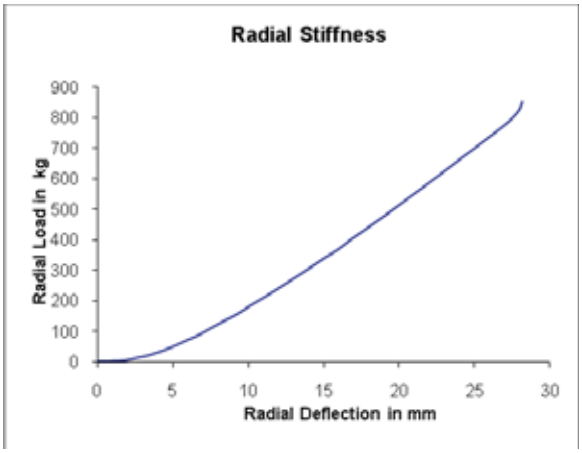
2.3 Foot Print Analysis.



This test method is used for the measurement of contact patch area, land & sea ratio & pressure distribution in a loaded tyre. This facility is utilized by tyre companies & leading OEMs for testing and validation of tyres being developed for new models.

2.4 Load deflection measurement

The performance of tyre in a vehicle depends to a large extent on the radial , lateral and tangential stiffness of the tyre under riding condition. The tyre is assembled on a test rim, inflated to required pressure and then the deflection force is measured in radial, lateral, tangential direction to determine the tyre stiffness in the respective direction.



2.5 Tyre Rolling Resistance measurement

With European Union going ahead with tyre labeling, the tyre manufacturers and Automotive OEMs are very keen in measuring the rolling resistance of tyres which directly affects the fuel efficiency of vehicle.

"The centre of excellence for tyre testing & certification "has most advanced machine for rolling resistance measurement by torque method which has been extensively used by many major tire manufacturer and automotive OEMs. Our machine has been aligned very well with European testing laboratory for testing rolling resistance as per the international standards like ISO 28580, ISO 18164, SAE J 2452, etc..

2.6 Cut tyre Analysis.

Cut tyre analysis is carried out by dissecting the tyre and separating various components to finding out the construction, type of material , and composition of various compounds used in the tyre. The data generated using instrumental analysis is used for conforming the quality of tyres, failure analysis, bench marking the quality and also for reverse engineering the design with a view to improve the quality / performance .

The tyre centre has developed the expertise for preparing the sample from various components of a cut tyre and analyse the composition of various components.

3) <u>THE PERFORMANCE OF RESEARCH AND DEVELOPMENT SECTION.</u>

The R & D section focused their activities in applied research mainly in design and development of material, process and validation of product so that this division can generate a sustainable revenue for self sufficiency apart from working on the fundamental research in association with academic and research institutes. The major achievements are highlighted as given below.

3.1 Gaskets for Milk Processing Industry:

Gaskets for the Butterfly valves developed with specially designed compounds complying with FDA regulation for milk processing machineries. Various sizes of valves were produced using the developed compound and validated in the actual application.

3.2 Silicone Mould s developed for Defense Sector :

Various sizes of Silicone and Hydrogenated Nitrile rubber (HNBR) Rubber based high performance moulds were developed for usage in Defense applications related to explosives.

The project was sponsored by Defense establishment and product supplied are tested and approved for its indented application.

3.3 Chemical and Solvent Resistant Gloves for Nuclear Applications.

Developed special type of user friendly gloves having resistance to aggressive chemicals and corrosive solvents such as Trichloroethylene for nuclear applications using specialty rubber latex by multiple dipping processes.

3.4 Rubber Gauntlets for Nuclear applications

A Memorandum of Understanding (MOU) was signed with Bhabha Atomic Research Centre (BARC), Tarapur, for indigenous development of Gauntlets using dry rubber by compression moulding process to get the desired performance requirement under severe chemicals and radiation resistant atmosphere in the reprocessing section of nuclear fuels.

The compression mould was designed, compound based on poly chloroprene rubber(CR), Chloro – sulphonated Polyethylene(CSM),Nitrile rubber (NBR) and Ethylene Propylene and Diene Monomer (EPDM) rubber developed and process was successfully established after doing an extensive and dedicated research and development work for almost three years.

It is noteworthy to specially mention here that BARC acknowledged our achievement and the chief executive Mr. Basu sent a letter of appreciation for successfully developing the gauntlets.

A copy of letter of appreciation from BARC is appended below for record.

Telephone : 022 25593723/3732
FAX No. 022 25505340
E-mail : basus@barc.gov.in

WIP Process Building
Trombay
Mumbai 400 085.

S. Basu
Distinguished Scientist &
Chief Executive, NRB

सत्यमेव जयते
भारत सरकार
Government of India
BHABHA ATOMIC RESEARCH CENTRE
Nuclear Recycle Board

Ref: NRB/CE/2011/ 5

January 2, 2012

SUB: MOU between BARC & IRMRA, Thane, for development of rubber gauntlets

There is an increasing need for finding suitable indigenous substitute for crucial imported materials. BARC has always encouraged efforts put up towards achieving this objective. The MOU between BARC & IRMRA, Thane, for development and supply of suitable rubber gauntlets, was one such effort.

It is noted with great pleasure, pride and honour that the development of suitable rubber gauntlets has been completed satisfactorily. The supplied gauntlets have been put in use in various units of BARC and the performance observed is comparable with the best quality imported gauntlets. I wish to congratulate all the team members of IRMRA and BARC, especially Shri K. Rajkumar , Dy Director IRMRA, for developing the rubber gauntlets as 'import substitute' quality material.

Kindly convey my best wishes and "Happy New Year" to all the members of IRMRA family.

S. Basu
2-1-12

(S. Basu)
Chief Executive

Dr. P. Thavamani,
Director,
Indian Rubber Manufacturers Research Association (IRMRA)
Plot No. 254/ 1-B, Road No. 16-V,
Wagale Industrial Estate,
Thane 400604.

3.5 TOT for door seals of Warship / Submarines.

We have successfully designed, developed and supplied specialty elastomeric seals for doors and hatches of warships and submarines and our products given very good service life. Since the requirement of seals has reached sizable volume for regular repair and overhauling and new ship as well, with the recommendation of navy, we identified potential suppliers, assessed their process capability, and status of quality system in place and finally the Transfer of Technology (TOT) was effected to the following three firms.

1. M/s. United Rubber Industries (I) Pvt Ltd , Mumbai.
2. M/s. Osaka Rubber Pvt Ltd., Mumbai.
3. M/s. S.S.Rubbers Pvt. Ltd., Hyderabad.

The technology has been successfully transferred to all the three companies under our supervision and hand holding, and supplies are being made to navy regularly.

4) TRAINING / WORKSHOP / SEMINAR/ CONFERENCES.

In order to disseminate the knowledge in rubber technology and the Laboratory Management System (LMS), latest trend prevailing in the frontier of rubber research, design and development, IRMRA conducts training programme, workshop, seminar and conferences regularly for the benefits of technical people working with rubber and allied material.

4.1 Short term Technical Training Courses on Rubber Technology

- Conducted 12 short term technical Training course on Rubber Technology at IRMRA, Thane which benefited more than 220 participants.

- Conducted 8 courses on Lab Management System, Measurement Uncertainty – principle and practice, and these courses benefited more than 50 participants across various laboratories on implementing lab management system to obtain / maintain their NABL accreditation.

- First time a special technical programme conducted for the shop floor supervisors and operators in regional languages at M/s. Phoenix Conveyor Belt India (P) Ltd.,, Kolkatta . The programme was very interactive and received an overwhelming response from the participants.

- Conducted corporate customized training courses for M/s. Mahindra Navister, Pune and M/s. VE Commercial Vehicles Ltd. (A Volvo Group and Eicher Motors joint venture) Indore. Participants were extremely happy to enrich their knowledge which would help them in designing of rubber components for auto industry

4.2 Work shop and Seminars

Conducted workshops and seminars in Chennai, Nasik, Baroda, Hyderabad, Ahmadabad and in other parts of country along with Bureau of Indian Standards (BIS) to create awareness on the Quality order notified by DIPP, emerging trend in rubber technology, advancement in rubber processing technology by creating common platform for the experts to come and share their knowledge with participants from industries. "Ask the Doctors" programme organized in Nasik provided a common technical forum for the people from SME sectors to interact with experts from different fields and helped them to find solution / clarification to the technical problem faced by them in day to day technical activities.

Conducted two international workshop during March 2012 one on "Chemical , Physical, and Analytical Testing of Rubber Products", another on " Design and Development of Rubber Products for New Generation Automobiles" in Bangkok, Thailand. Both the workshops were well attended by participants from various countries and, as informed by the organizers, the international participants very much appreciated the course content, the quality of presentation and the explanation they got during the interaction with faculties.

The workshops were conducted concurrently with "International Conference on Rubber and Tire Technology" organized by Rubber Industry Academy, Bangkok and well attended and appreciated by participants from many countries.

5) PUBLICITY TO IRMRA'S ACTIVITIES.

IRMRA has been using all the opportunities to give due publicity to its research, design, development, testing, training and consultancy services for the benefits of both public and private sectors. Exhibit its technical capabilities not only in India, but also tried to use the international platform for attracting the customers across the globe.

5.1 Participation in TECHYARD 2011.

The Naval Dockyard, Mumbai organized two days International Technical Exhibition and seminar "TECHYARD – 2011" in Mumbai and IRMRA displayed the functionally critical rubber components such as acoustic tiles, pneumatic fenders, seals and gaskets for warship doors and hatches and our Officers presented technical paper in the seminar.

5.2 Participation in Naval Dockyard Expo and Conference.

IRMRA officers Mr. K.R.Krishnan and Mr. Mohammed Anis participated in the conference and exhibition on "Advanced Ship Repairs Technology" organized by Naval Dockyard, Vishakhapatnam from 17.09.2011 to 18.09.2011.In the conference presentation was made about IRMRA's infrastructure, R & D capabilities and exhibited the critical rubber products developed for navy and other defence applications.

5.3 Participation in Tyre Expo 2012 and Conference in Germany.

Our officials Mr. K. R. Krishnan, Mr. Niteesh Shukla and Mr. Satish Patel participated in the Tyre Technology Conference and Expo 2012 held from 12th to 14th February 2012 in Cologne, Germany.

They visited the expo and interacted with testing equipment manufacturers, suppliers and tyre companies for promoting IRMRA's interest apart from participating in the tyre technology conference which has given opportunity to upgrade themselves on the latest development taking place in tyre technology.

Mr. Satish Patel deputed to attended two days short course on “Behaviour of Rubber Material s” held in conjunction with Tyre Technology Expo and conference. The course was conducted by the eminent professors from Queen Mary University, London and experts from Tun Abdul Razak Research Centre of Malaysian Rubber Board.

5.4 Participation in Auto Expo 2012

Mr. K.R.Krishnan, Mr. N.A.Phondke and Mr. Anis participated in the Auto Expo 2012 held at Pragati Maidan, New Delhi from 09.01.12 to 10.01.12.

5.5 Participation in Bangkok Expo.

We put up a stall displaying our testing, R & D, Consultancy capabilities in the Rubber Technology Expo 2012 held in Bangkok. The expo attracted international visitors and our stall recorded a very good response ranging from non- tyre, and tyre product manufacturers, raw material suppliers, testing agencies, rubber trade association, researchers and student community across the globe. Our stall was visited by eminent delegates from rubber industries including the President of All India Rubber Industries Association (AIRIA), and the Secretary of Industry Ministry of Thai Government.

6) PARTICIPATION IN NATIONAL / INTERNATIONAL STANDARDIZATION ACTIVITIES.

The expert scientists regularly participate in the BIS and ISO meeting and contribute for developing standards at national and International levels. Our Director is the Chairman of Rubber and Rubber Products Sectional Committee PCD13, member of (Transport Engineering Division) TED 27 which deals with standardization activities of automotive tyres and tubes, and TED 26 –Vehicles Running on Non-conventional Fuels.

6.1 Participation in ISO / TC 45 Meeting

On behalf of BIS, Indian delegation lead by Dr.P.Thavamani, Director, IRMRA, [Chairman, PCD 13] have participated in the 59th ISO TC 45 meeting held in Yokohama, Japan from 17 to 21st Oct 2011.

The following members were the part of Indian delegation.

1.	Dr. P.Thavamani, IRMRA	Head of Delegation [India]
2.	Mr.K.Rajkumar, IRMRA,	Member of Delegation
3.	Dr. Vijay Malik, BIS,	Member of Delegation
4.	Dr. R.K.Mathan, Revertex,	Member of Delegation
5.	Mr. Mohanachandara Nair, Rubber Board,	Member of Delegation
6.	Dr. Saikat Dasgupta, HESETRI,	Member of Delegation
7.	Mr. Mehul Patel, Gujarat Reclaim Rubber	Member of Delegation
8.	Mr. Harsh Gandhi, Gujarat Reclaim Rubber	Member of Delegation

INDIAN DELEGATION TO ATTEND ISO TC 45 MEETING IN JAPAN

While involving in deliberation for framing the specification and passing the resolution, the capability of Indian Industries and their ability to comply with specification have been taken into consideration. India has taken the Project Leadership role for framing the standards under New Work Item Proposal (NWIP) for Reclaim Rubber, Determination of residual non rubber content in Natural rubber, and Latex Products. IRMRA and HASETRI regularly participate in Inter-laboratory Test Programme for maintaining our testing proficiency at par with any international laboratory.

6.2 Participation in ISO / TC 31 Meeting

Three member delegation consisting of Dr. Thavamani, our Director, Mr. R. R. Singh, Scientist-D, Member Secretary -TED 7 of BIS , and Mr. T. Chakravarty, Secretary General, ITTAC participated in ISO / TC 31, sub-committee (SC), SC3 and SC 10 meetings on Standardization of Automotive Tires and Tubes held from 12 to 15th March 2012 in Kyoto, Japan. During the deliberation, Indian delegation strongly defended our tyre and tube manufacturers' interests, included many of the tyre sizes in the revised ISO standards, and supported many resolutions in favour of us. As no ISO standard is available for automotive tubes, our new work item proposed on developing standard " ISO NP 17464 – Pneumatic Tubes for Automotive Vehicles – Technical Requirement and Test Methods" have been accepted. With the support of members from Japan, Thailand, Malaysia, China and other Asian countries, Indian delegation strongly repealed the US and Europeans' proposal to remove the plunger energy test and bead unseating tests from the existing standard ISO 10191 – Passenger Car Tyres – Verifying Tyre Capabilities – Laboratory Test Methods.

INDIAN DELEGATION FOR ISO TC 31 MEETING IN KYOTO, JAPAN

7) STATUS OF SPONSORED PROJECTS:

We have been awarded two World Bank funded projects under National Agricultural Innovation Project (NAIP) initially for a period of three years up to March 2012. After reviewing and satisfying with good progress of projects, NAIP has extended the duration of both the projects for one more year.

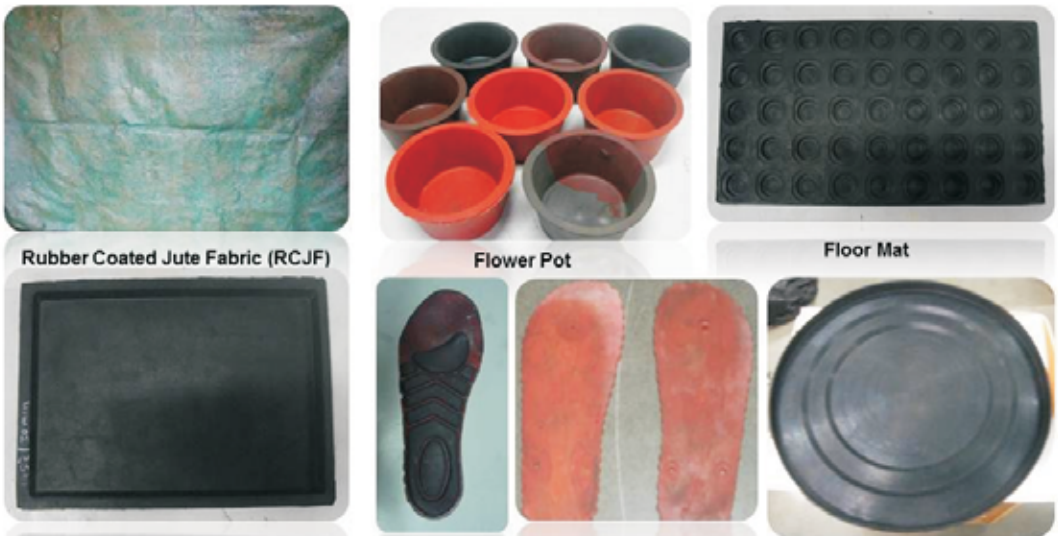
7.1 Progress of the Project " Design and development of Rubber Dams for water sheds"

So far, four prototype rubber dams have been installed with the support of consortium partner from Directorate of Water Management (DWM), Bhubaneswar for evaluating the field performance and the benefits of these dams in improving the crop yield improvement by better water management and ground water recharge.

The NAIP National Director Dr. Bengali Babu, and the National Co-ordinator Dr. Kochar Made field visit for impact assessment of rubber dam.

7.2 Progress of Project "A Value Chain on Coconut fibre and its byproducts: Manufacture of Diversified products of Higher Value and Better Marketability to Enhance the Economic Returns of Farmers"

Under this project the coconut pith is ground and chemically modified to use as cheaper, light weight and biodegradable filler in rubber compounds. Many products as shown below have been developed using the chemically modified pith and this generated a lot of interest among the non-tyre rubber product manufacturing industries.



Various Products Made Using Coconut Pith-Rubber Composites

8) PUBLICATION AND PRESENTATION OF TECHNICAL PAPERS BY OUR SCIENTISTS:

IRMRA's scientists published scientific / technical papers in rubber journals and also presented the same during the respective seminars / Conference workshops as under:

1. High temperature resistance properties of NBR based Polymer nanocomposites, International Journal of ChemTech Research, Vol 3, No. 3, pp 1343-1348 July-Sept. 2011, K.Rajkumar, Ranjit.P, S. K.Chakraborty, Nivashri, P.Pazhanisamy, P.Jeyanthi, P.Thavamani.

2. Case Study: Going for Eco-Friendly Rubber, chemical engg world, Feb 2012, 82-83, K.Rajkumar, Ranjit.P, P.Thavamani.

3. Radiation sensitivity evaluation and physico-mechanical characterization of PCR/EPDM/MWNT nano-composites, K.. Dubey, Y. K. Bhardwaj1 , K.Rajkumar, L. Panicker, C. V. Chaudhari1, S. K. Chakraborty, S. Sabharwal. Advanced polymer technologies.

4. Processing of nano fillers in Nitrile Rubber- a Novel technique, K.Rajkumar, Ranjit.P , P.Pazhanisamy, P.Jeyanthi, P. Thavamani, 20-21st Jan 2012, 21st IRMRA's Rubber conference.

5. Life Prediction of Tire Tread compound by Arrhenius Approach under Dynamic Heat Ageing Condition, Ashok Singh, Chanderesh, Ranjit.P, K. Rajkumar, P. Thavamani, 20-21st Jan 2012, 21st IRMRA's Rubber Conference.

6. Fatigue Life Estimation of an Elastomeric Pad, B.K. Suryatal, K. Rajkumar, P.Thavamani, 20-21st Jan 2012, 21st IRMRA's Rubber Conference.

7. Cost effective Nitrile Rubber compound for Footwear Application using Eco-friendly treated Coconut pith filler, Ranjit.P, K.Rajkumar, Arun Kumar V M, Anas K, P.Thavamani, 20-21st Jan 2012, 21st IRMRA's Rubber Conference.

8. Bio-composite environmental friendly natural fiber and natural rubber composite, Chandresh D , Ashok S, G.A Usmani1 , K. Rajkumar, P.Thavamani, 20-21st Jan 2012, 21st IRMRA's Rubber Conference.

9. Dispersion study of Nano ATH in SBR Rubber and its effect on Physico-mechanical properties, Sangita M.Rakshe, 20-21st Jan 2012, 21st IRMRA's Rubber Conference.

9) STATUS OF IRMRA'S 11TH FIVE YEAR PLAN SCHEMES:

Three schemes were approved under the 11th five year plan and the status of those schemes are reported below :

9.1 Centre of Excellence in Tyre Research and Testing:

Under this scheme Rs. 22.50 crores were received for setting up of centre of excellence for tyre research, testing and certification. The centre has been well established and manned round the clock to render the service to most of the tyre manufacturers across the globe. The details of services rendered by centre is already elaborated under sl. 2.

9.2 HRD – Entrepreneurship Development Programme: HRD Activities:-

Residential facility at IRMRA - a great relief for outsiders / students:-

Under HRD scheme, residential facilities to accommodate around 40 persons have been created. The participants from various parts of country like Kolkatta, Bangalore, Chennai and Delhi / Chandigarh etc. availed the residential facilities to stay in our campus and participated in our training programs. They appreciated the residential facility provided at a reasonable cost.

Similarly, IRMRA have also supported students to participate in the Rubber Conferences and seminars. Students from MIT, Chennai, SJ Collge of Engineering, Mysore, have availed IRMRA's residential facilities while attending IRMRA 21st Rubber Conference organized in Mumbai.

Students are allowed to stay free of cost during the course of their project work as part of their M.Tech / B. Tech / M. Sc degree programs.

The following Institution have sent their students to IRMRA under Academic Research work program on Rubber Technology during the year 2011-12.

S. No.	Names of Institute facilities for project work	No. of students availed	Program
01.	Data Maghe college	3	B.Tech
02.	UDCT, Jalgaon	2	M.Tech
03.	Cochin University	3	B.Tech
04.	M.G university	2	B.Tech
05.	UDCT, Mumbai	2	M.Sc.
06.	L. D. college of Engineering	2	B.Tech
	Total	14	

All students have successfully completed their academic programs. The faculties from respective Institution have appreciated the training program and Research work carried out by their students.

9.3 Outreach Programme:

IRMRA - Outreach Activities

As a part of Outreach activities, conducted seminars at the following cities like Nasik, Baroda, Chennai. Also conducted training program at international city – Bangkok.

S.No.	City	Topic of program	Date	No. of participants attended
01.	Nasik	" Ask the Doctor" – problem solving in rubber product manufacturing		18-11-11105
02.	Chennai	Emerging Trends in Rubber Industry" Organized by AIRIA-SR, IRI and IRMRA		06-01-12110
03.	Baroda	"Emerging Trends in Rubber Industry" Organized by AIRIA-WR, IRI and IRMRA		10-12-1185
04.	Bangkok	Design and development of Rubber Products for new generation vehicles.		09-03-1232
05.	Bangkok	Physical, Chemical and Analytical testing of Rubber Products.	10-03-12	36

As a part of OR, we also supported many events conducted by AIRIA, IRI and BIS

10) OTHER IMPORTANT EVENTS:

IRMRA's 21st Rubber Conference – January'2012

21st Rubber Conference and exhibition On "Emerging Trends in Developing Eco-Friendly and Energy Efficient Elastomeric Material and Processing Technology" was organised from 20th to 21st Jan 2012 in Hotel Imperial Palace, Mumbai.

This Conference provided a common platform for the scientist, technologists, academicians, industrialists and environmentalist to exchange their ideas and disseminate the knowledge on the development taking place in the areas of natural and synthetic rubbers, chemicals, plasticizers, reinforcing fillers and nano composites in the context of the global warming taking place due to emission of green house gasses, the emerging environmental regulations, fuel efficiency, spiraling cost of materials and dwindling resources etc.

DIGNITARIES LIGHTING THE LAMP AT THE OPENING CEREMONY

More than 300 delegates participated in the conference and 40 research based technical papers, 8 invited lectures, and 10 poster presentations were made during the conference.

Shri. O. S. Kanwar, President IRMRA, welcomed all the delegates, and the Conference was inaugurated by the Chief Guest Rear Admiral G.S.Pabby VSM, chief Staff officer [Technical], Head quarters, Western Naval command, Mumbai. Commodore Gopal Bharathi, Director, MDL, Mumbai, was guest of Honor and Dr. S. K. Chawla, Goodyear Tire & Rubber Co, USA, delivered key note address.

FELICITATION OF PADMASHREE SHRI K.M.PHILIP

During the inauguration of conference, Padmashree Shri. K.M.Philip, the former President of IRMRA was felicitated on his centenary year by Mr. Onkar S. Kanwar by showering him with a shawl, and Chief Guest Rear Admiral G.S.Pabby VSM presented a plaque having inscription about his contribution to IRMRA in association with rubber industries. While acknowledging the felicitation Shri K.M.Philip expressed his gratitude for organizing felicitation in the 21st Rubber Conference and thanked the President and Director for the same. He wished the conference a great success and IRMRA to contribute more for the rubber industry in the coming days.

RELEASE OF SOUVENIER

INAUGURATION OF EXHIBITION BY CHIEF GUEST

Mr. O. S. Kanwar,Commodore Gopal Bharathi, Dr.P.Thavamani and other delegates looks on

The chief guest in the presence of Mr. O. S. Kanwar, Commodore Gopal Bharati, and Dr. P. Thavamani inaugurated the expo which was concurrently organized along with the 21st Rubber Conference where exhibitors mainly from AIRIA, Rubber Board, Rubber Asia and others put their stall for displaying their products and services.

BEST PAPER AWARD

The best paper award committee recommended the award to two papers and during the conference, Shri Onkar S. Kanwar presented the award to Mr. S.N. Das, of DMDE, Secundrabad, and Dr. Rosamma Alex, of RRI, Kottayam

ENTHRALLING MUSIC AND DANCE PROGRAMME

The first day conference continued with an enthralling and exiting entertainment programme witnessed by fully packed audience and followed by dinner.

VALEDICTORY FUNCTION

During the valedictory function the delegates appreciated that the 21st Conference set the highest standards with respect to arrangement of inaugural programme, felicitation of Padmashree Shri. K. M. Philip, Quality of technical papers presented and the entertainment programme performed by artists.

11) <u>VISIT OF INTERNATIONAL DELEGATES:-</u>

A high level delegation led by Datuk Wira HJ Ahmad HJ Hamzah, Chiarman and Datuk Dr. Salmiah Ahmad, Director General, of Malaysian Rubber Board (MRB) visited IRMRA on September 5, 2011.

The members were warmly welcomed and briefed about the various testing and processing facilities available and the research and development activities being carried out at IRMRA. The members, after making a visit to the various laboratories and Tyre Research Centre, expressed their sincere appreciation about the state-of-the-art facilities created by IRMRA and expertise developed by its scientists, for catering to the needs of both tyre and non tyre industries.

OFFICERS OF IRMRA

Standing from Left : Mr. Prashant Bankar, Sr. HR Officer, Mr. Hemant Khairnar, AFO, Mr. Mahesh Vaja, CFO, Mr. Yogesh Chavan, Supply Chain Executive, Mr. Manohar Nawale, Jr. ScientificOfficer, Mr. B.S.Yadav, Jr. Officer, Mr. Sachin Barve, Jr. Officer.
Sitting from Left : Mr. K.R.Krishnan, Sr. Asst. Director, Mr. N.A.Phondke, Officer CSC, Mr. P.K.Das, Dy.Director, Dr. P.Thavamani, Director, Mr. K.Rajkumar, Dy. Director, Mr. M.Anis, Sr. Scientific Officer, Mr. Niteesh Shukla, Sr. Scientific Officer

12) EMPLOYESS' WELFARE ACTIVITIES.

In the history of IRMRA, new miles stones have been created by providing a three pairs of uniform with shoes and socks so that every regular employee has pride in wearing uniform carrying “IRMRA” embroidering in their shirts.

For the benefit of everyone working for IRMRA, a canteen has been opened up during the current year. This canteen provides a highly subsidized, hygienic, healthy and tasty vegetarian breakfast and lunch for all those, including the trainees and students from premier institutes, who are working for IRMRA. As a symbol and our commitment to maintain quality in all our walks of

life, the canteen was inaugurated by an eminent “Quality Experts” Mr. Basudev Bhattacharya, Secretary, Quality Forum & Guest Faculty of LMS Training, in the presence of Mr. P.H. Bhave, Ex-Sr. Director, Electronics Regional Testing Laboratory [ERTL], Mumbai.

In order to promote better understanding and team spirit not only among the employees but also with their family members, IRMRA organized “Independence Day Celebration “ with our employees and their family members.

The celebration began with flag hoisting followed by breakfast and cultural programme performed by the employees and their children. At the end of programme, awards were given for the best "employee" in each category, attendance award, and special achievement award for our employees' children. The programme ended with special lunch for all the participants.

The administration is taking care of welfare of employees by extending financial support by way of interest free salary advance, soft loan for buying properties, vehicles, and children's education, festival advance etc. which are recovered from employees in easy installments.

Mr. Babaji Thoke, after putting a memorable 25 years of service in various sections of IRMRA, retired on 30.12.2011. He has been very sincere, committed and duty bound during his 25 years of service with IRMRA.

Befitting farewell function was organized for him in the presence of his family members and felicitated with shawl and gift. All the employees wished him very happy and healthy retired life with his family members.

OUR GRATITUDE AND APPRECIATION:

We would like to express our sincere thanks to our immediate past President Mr.Onkar S. Kanwar, Chairman and Managing Director, Apollo Tyres Ltd., and the Present President Dr.

Raghupati Singhani, Vice Chairman and Managing Director, JK Industries Ltd., for their valuable guidance, direction, advise, and support to IRMRA, in spite of their busy schedule.

We thankfully acknowledge the financial support provided by DIPP, the Ministry of Commerce and Industries, Government of India under 11th five year plan for creating state-of-the art facilities and modern infrastructure especially Centre for Tyre Research and Testing, which has made IRMRA as one of the most prominent R&D Institutes in the World for both tyre and non tyre sectors.

We would like to put on record of our appreciation to NAIP for their financial support and to the consortium members in successfully executing the sponsored project.

Our sincere thanks also to all our Governing Council Members for their advice and guidance, our customers and members for their valuable patronage and supporting institutes like Rubber Board, BARC, AIRIA, ATMA, IRI, ARAI, CIRT, BIS, and last but not the least, to all our employees, without whose support, IRMRA would not have progressed to such an extent.

Thanking you,

Yours sincerely,

Dr.P.Thavamani
Director

OUR EMPLOYEES : OUR ASSETS

Scientific & Technical Staff

Dr.P.Thavamani	Director
Mr.Prabir Roy Choudhury	Joint Director
Mr.P.K.Das	Deputy Director
Mr.K.Rajkumar	Deputy Director
MR.K.R.Krishnan	Sr. Asst. Director
Mr.Mohammed Anis	Sr.Scientific Officer
Mr. N. K. Shukla	Sr.Scientific Officer
Mr.N.A.Phondke	Officer, CSC
Mr.Manohar Nawale	Jr. Scientific Officer
Mr.B.S.Yadav	Jr. Officer
Mr.Yogesh Chavan	Supply Chain Executive
Mr. Sachin Barve	Jr. Officer
Mr.B.R.Arote	Sr. Scientific Assistant
Mr.S.P.Patel	Sr. Scientific Assistant
Mr.Sriram Iyer	Sr. Scientific Assistant
Mr.Chandan Chowdhury	Sr. Scientific Assistant
Mr.Bhaskar R.Dumbre	Sr. Scientific Assistant
Mrs.Suhasini Katke	Jr. Scientific
Assistant**Mr.Saburaj**	Jr. Scientific Assistant
Mr.Samji Victor	Jr. Scientific Assistant
Mr.Bhagaban Panda	Jr. Scientific Assistant
Mr.D. J. Maurya	Jr. Scientific Assistant
Mr.M.N.Sharma	Sr. Technical Assistant-D
Mr.Santosh Jagdale	Sr.Laboratory Assistant-B
Mrs.Jyoti P. Chaudhari	Sr.Laboratory Assistant-B
Mr.Jayaram Shetty	Sr.Laboratory Assistant-B
Mr.Raju S.Shetty	Sr.Laboratory Assistant-A
Mr.Shantaram K. Naik	Sr.Laboratory Assistant-A
Mr.Nilesh N. Jadhav	Jr.Laboratory Assistant
Ms.Ujwala Phutak	Jr.Laboratory Assistant
Ms.Priti Rasam	Jr.Laboratory Assistant
Mr.Vivek Acholkar	Electrical Maint. Assistant
Mr.Rajendra More	CNC Machine Operator

ADMINISTRATIVE STAFF

Mr.P.A.Kothandaraman	Asst. Director
Mr.N.P.Dileep Kumar	Senior Commerical Assistant-D
Mr.Narayanan Kutty	Senior Commerical Assistant-C
Mr.K.S.Shankar	Senior Commerical Assistant-B
Ms.Sonali Wadkar	Sr. Receptionist / Tel. Operator
Mrs.Minal Patil	Sr.Com.Asstt. - A
Mrs.Rajakantam Iyappan Das	Sr. Secretarial Asst. - A
Mrs.Vidya S. Jadhav	Accounts Assistant
Ms.Vaishali Hodavdekar	Steno-cum-General Assistant

M. M. NISSIM AND CO. (Regd.)
CHARTERED ACCOUNTANTS

Barodawala Mansion,
B-Wing, 3rd Floor,
81, Dr. Annie Besant Road,
Worli, Mumbai – 400 018.
Tel. : 2494 9991 Fax : 2494 9995
E-mail : mail@mmnissim.com
Website : www.mmnissim.com

AUDITORS REPORT

The Members
Indian Rubber Manufacturers Research Association
Thane, Mumbai.

We have audited the Balance Sheet of INDIAN RUBBER MANUFACTURERS RESEARCH ASSOCIATION as at 31st March 2012 and also the Income and Expenditure Account and the Receipts and payments account for the year ended on that date annexed thereto. These financial statements are the responsibility of the associations' management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards in India. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. An audit includes examining on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

1. We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit.

2. In our opinion, proper books of account have been kept by the Association in so far as it appears from our examination of the books

3. The aforesaid Balance Sheet and Income & Expenditure Account and Receipts and Payments account dealt with by this Report are in agreement with the books of account.

4. Attention is invited to the following notes in Schedule 15 of the financial statements;

   a) Note No. 3 relating to differences in balance confirmation received from bank and Fixed Deposit balances in books of accounts maintained by the association.

   b) Note no. 5 relating to absence of a Central Stores Department and maintenance of stock registers and periodic reconciliations with regards to receipts / issues and closing stocks. Inventories have been taken and valued based on the verification conducted by the management as at the year end.

c) Note no. 7 relating to provision for depreciation on assets acquired under "National Agricultural Innovation Projects" not being in strict compliance with Accounting Standards issued by the Institute of Chartered Accountants of India.

We further report that, the aggregate impact resulting out of our observations above on the excess of income over expenditure for the year is not quantifiable, since the issues involved are judgemental in nature and we have largely relied upon the judgement of the management on these matters.

5. In our opinion and to the best of our information and according to the explanations given to us, the said accounts, subject to our comments in para 4 above, and read together with the notes thereon give a true and fair view, in conformity with the Accounting Principles generally accepted in India

a) in the case of the Balance Sheet, of the state of affairs of the Association as at 31st March, 2012 and ;

b) in the case of the Income and Expenditure Account, of the excess of Income over expenditure for the year ended on that date.

c) in the case of the Receipts and Payments Account, of the receipts and payments for the year ended on that date.

For M. M. NISSIM AND CO.
Chartered Accountants
(ICAI Regn No. 107122 W)

Place: Mumbai
Date:

(N.KASHINATH)
PARTNER
Mem.No.36490

BALANCE SHEET AS AT 31ST MARCH 2012

PARTICULARS	Schedule	Rs. As at 31.03.2012	Rs. As at 31.03.2011
CAPITAL FUND AND LIABILITIES			
CAPITAL FUND	1	3,584,582	1,784,082
RESERVES AND SURPLUS	2	143,413,983	64,411,342
PROJECT FUNDS	3	286,308,323	287,163,938
PROVISIONS	4	31,665,641	43,179,687
TOTAL		464,972,529	396,539,049
ASSETS			
FIXED ASSETS	5	237,644,020	254,080,938
CURRENT ASSETS, LOANS AND ADVANCES	6	227,328,509	142,458,110
T O T A L		464,972,529	396,539,049
POLICIES	14		
NOTES ON ACCOUNTS	15		

Vide our report of even date

For M. M. NISSIM AND CO.
Chartered Accountants

For INDIAN RUBBER MANUFACTURERS' RESEARCH ASSOCIATION

(N.KASHINATH)	(Dr. P. THAVAMANI)	(Dr. RAGHUPATI SINGHANIA)
PARTNER	DIRECTOR	PRESIDENT

Place : Mumbai
Date :

INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2012

PARTICULARS	Schedule	Rs. 2011-2012	Rs. 2010-2011
INCOME:			
INCOME FROM OPERATION / SERVICES	7	143,368,007	123,699,317
GRANTS / SUBSIDIES	8	33,092,070	32,354,432
FEES / SUBSCRIPTION	9	808,619	778,081
OTHER INCOME	10	15,428,738	3,411,110
TOTAL		192,697,433	160,242,939
EXPENDITURE:			
STORES	11	25,858,683	15,486,013
ESTABLISHMENT EXPENSES	12	35,401,899	43,883,858
OTHER ADMINISTRATIVE EXPENSES	13	20,850,669	23,227,833
SPONSORED PROJECTS EXPENSES (Refer Note 10)		3,706,691	3,155,264
INTEREST		-	-
DEPRECIATION		30,276,027	29,522,875
TOTAL		116,093,970	115,275,843
EXCESS OF INCOME OVER EXPENDITURE		76,603,463	44,967,096
Note 12)		2,399,178	-
		79,002,641	44,967,096
APPROPRIATIONS :			
TRANSFERRED TO GENERAL RESERVE		79,002,641	44,967,096
SIGNIFICANT ACCOUNTING POLICIES	14		
NOTES ON ACCOUNTS	15		

SCHEDULES FORMING PART OF BALANCE AS AT 31ST MARCH, 2012

SCHEDULE 1- CAPITAL FUND:

PARTICULARS	Rs. As at 31.03.2012		Rs. As at 31.03.2011	
Life Membership Contribution				
Balance as at the beginning of the year	425,000		125,000	
Add: Contribution received during the year	1,700,000		300,000	
Balance as at the end of the year		2,125,000		425,000
Admission Fees				
Balance as at the beginning of the year	475,500		313,500	
Add: Contribution received during the year	100,500		162,000	
Balance as at the end of the year		576,000		475,500
Capital Donation Fund				
Balance as per Last Accounts		661,093		661,093
CSIR Capital Grant Fund				
Balance as at the end of the year		222,489		222,489
TOTAL		3,584,582		1,784,082

SCHEDULE 2- RESERVES AND SURPLUS

SPECIAL RESERVES				
Staff Welfare Fund:				
Balance as per Last Accounts		3,462,226		3,462,226
GENERAL RESERVE				
Balance as at the beginning of the year	60,949,116		15,982,020	
Add: Transfer from Income and Expenditure Account	79,002,641		44,967,096	
		139,951,757		60,949,116
TOTAL		143,413,983		64,411,342

SCHEDULES FORMING PART OF BALANCE AS AT 31ST MARCH, 2012

SCHEDULE 3- PROJECT FUNDS

Particulars	FUNDWISE BREAK-UP				TOTAL	
	Laboratory Fund	Research & Development Fund	Contribution For Sponsored Research	Contribution For NAIP Projects	As at 31.03.2012	As at 31.03.2011
Balance at the Beginning of the year	296,000	14,332,509	256,108,955	16,426,474	287,163,938	284,030,715
Additions to the Funds / Grants	-	-	29,200,000	3,036,455	32,236,455	35,487,654
Interest on Earmarked Deposits	-	-	-	-	-	-
	296,000	14,332,509	285,308,955	19,462,929	319,400,393	319,518,369
Utilisation / Expenditure towards objectives of the Grant:						
Depreciation of Rs.28566656/- (Previous year Rs.28372603/-) and Rs 818723 /-(Previous year 826565/-)relating to Sponsored Research and NAIP Project respectively and the balance representing recurring expenditure for the year are recognised in the Income and Expenditure Account.	-	-	28,566,656	4,525,414	33,092,070	32,354,432
Transfer To Capital Fund	-	-	-	-	-	-
TOTAL	296,000	14,332,509	256,742,299	14,937,515	286,308,323	287,163,938

SCHEDULE 4- CURRENT LIABILITIES AND PROVISIONS

Particulars	2011-2012		2010-2011
A. CURRENT LIABILITIES:			
Sundry Creditors			
For Expenses	1,922,907		607,230
Others	14,988,166		12,935,318
		16,911,073	13,542,548
Advances Received	6,448,084	6,448,084	21,027,443
		23,359,158	34,569,991
B. PROVISIONS:			
Accumulated Leave Encashment	4,619,941		4,969,913
Provision for Gratuity (Refer Note 13)	3,686,542		3,592,682
Provision for Fringe Benefit Tax	-		47,101
		8,306,483	8,609,696
Total		31,665,641	43,179,687

SCHEDULES FORMING PART OF BALANCE AS AT 31ST MARCH, 2012

SCHEDULE 5 - FIXED ASSETS

DESCRIPTION	GROSS BLOCK				DEPRECIATION				NET BLOCK	
	Cost as at 31.03.2011	Additions during the year	Deductions during the year	Cost as at 31.03.2012	As at 31.03.2011	Provided during the year	Deductions during the year	Total Up to 31.03.2012	As at 31.03.2012	As at 31.03.2011
LEASEHOLD LAND	60,200	-	-	60,200	-	-	-	-	60,200	60,200
FREEHOLD LAND	29,055,500	-	-	29,055,500	-	-	-	-	29,055,500	29,055,500
BUILDINGS:										-
(On Leasehold Land)	18,863,915	-	-	18,863,915	12,980,474	588,344	-	13,568,818	5,295,097	5,883,441
(On Freehold Land)	90,043,178	1,364,598	-	91,407,777	18,255,790	7,307,988	-	25,563,779	65,843,998	71,787,388
LABORATORY	211,877,840	10,147,203	-	222,025,043	94,233,271	18,452,840	-	112,686,111	109,338,932	117,644,569
VEHICLE	2,601,293	-	652,717	1,948,576	1,175,182	210,018	600,822	784,377	1,164,199	1,426,111
FURNITURE AND	4,436,158	190,400	-	4,626,558	2,597,824	202,873	-	2,800,697	1,825,861	1,838,334
OFFICE EQUIPMENTS	1,574,014	-	-	1,574,014	1,254,619	-	-	1,254,619	319,395	319,395
COMPUTER/	6,155,889	956,607	-	7,112,496	5,398,434	1,008,381	-	6,406,815	705,681	757,455
ELECTRICAL	16,473,960	291,978	-	16,765,938	10,406,730	974,088	-	11,380,818	5,385,120	6,067,230
LIBRARY BOOKS	874,474	-	-	874,474	874,474	-	-	874,474	-	-
FIRE FIGHTING	125,306	-	-	125,306	112,933	1,856	-	114,789	10,517	12,373
DIES AND TOOLS	9,099,994	471,907	-	9,571,901	5,577,473	597,136	-	6,174,609	3,397,292	3,522,521
OTHER FIXED ASSETS	86,351	-	-	86,351	81,182	1,292	-	82,474	3,877	5,169
INTANGIBLE ASSETS	1,655,896	-	-	1,655,896	1,205,948	112,487	-	1,318,435	337,461	449,948
NAIP - EQUIPMENTS	15,130,770		-	15,130,770	1,451,421	718,088	-	2,169,509	12,961,261	13,679,349
NAIP Coir Equipments	1,680,432	468,310	-	2,148,742	108,477	100,636	-	209,113	1,939,629	1,571,955
TOTAL	409,795,170	13,891,003	652,717	423,033,456	155,714,231	30,276,027	600,822	185,389,436	237,644,020	254,080,938
PREVIOUS YEAR	358,407,221	51,387,949	-	409,795,170	126,191,356	29,522,875	-	155,714,231	254,080,938	

SCHEDULES FORMING PART OF BALANCE AS AT 31ST MARCH, 2012

SCHEDULE 6 – CURRENT ASSETS, LOANS AND ADVANCES

PARTICULARS	Rs. As at 31.03.2012	Rs. As at 31.03.2011
A) CURRENT ASSETS:		
Inventories:		
Developed Rubber Products	1,176,215	1,373,962
Work in Progress	202,188	333,450
Chemical, Stores and Spares	1,548,170	2,778,659
Scrap Material	249,948	-
	3,176,521	4,486,071
Sundry Debtors: (Unsecured, Considered Good, unless otherwise stated)		
Debts Outstanding for a period exceeding six months :		
Considered Good	10,497,723	11,617,956
Considered Doubtful	1,000,000	500,000
	11,497,723	12,117,956
Less: Provision for Doubtful Debts	1,000,000	500,000
	10,497,723	11,617,956
Others	9,438,273	13,212,851
	19,935,996	24,830,807
Cash Balance in hand	30,230	48,386
Bank Balances:		
With Scheduled Bank		
In Current Accounts	10,331,106	46,532,064
In Margin Accounts	-	3,612,974
In Deposit Accounts	163,282,899	48,037,448
	163,282,899	48,037,448
T O T A L (A)	196,756,751	127,547,749

SCHEDULES FORMING PART OF BALANCE AS AT 31ST MARCH, 2012

SCHEDULE 6 – CURRENT ASSETS, LOANS AND ADVANCES (CONTD....

B. LOANS, ADVANCES AND OTHERS ASSETS:			
(Unsecured , Considered Good)			
Staff Loans		**2,508,810**	2,856,850
Advances and other amounts recoverable in cash or kind			
or for value to be received		**9,230,542**	7,979,140
Tax Deducted at Source		**8,263,774**	2,987,608
NAIP Project Receivables (Refer Note 10)		**124,067**	-
Income Accrued on Deposits		**10,444,565**	1,086,763
T O T A L (B)		**30,571,758**	14,910,361
T O T A L (A + B)		**227,328,509**	142,458,110

SCHEDULES FORMING PART OF BALANCE AS AT 31ST MARCH, 2012

SCHEDULE 7 - INCOME FROM OPERATIONS/SERVICES

PARTICULARS	Rs. As at 2011-12	Rs. As at 2010-11
Testing & Investigation Charges	86,919,656	80,429,000
Training / Workshop Fees & other recoveries	1,555,284	1,549,378
Miscellaneous Income	171,675	1,301
Development Income	49,578,929	41,668,287
Sale of Rubber Scrap	5,142,462	51,350
TOTAL	143,368,007	123,699,317

SCHEDULE 8 - GRANTS / SUBSIDIES (Irrevocable Grants * Subsidies Received)

Sponsored Projects: (Refer note 10)		
Revenue Expenses	3,706,691	3,155,264
Deferred Income(revenue grant)	29,385,379	29,199,168
TOTAL	33,092,070	32,354,432

SCHEDULES FORMING PART OF BALANCE AS AT 31ST MARCH, 2012

SCHEDULE 9 - FEEDS/SSUBSCRIPTIONS

PARTICULARS	Rs. As at 2011-12	Rs. As at 2010-11
Annual Fees/Subscriptions	175,500	778,081
21st Rubber Conference	633,119	-
TOTAL	808,619	778,081

SCHEDULE 10 - OTHER INCOME

INTEREST :		
On Term Deposits with Scheduled Banks	13,616,271	3,049,284
On Staff Loans	273,855	285,888
Sundry Other Income	3,950	75,938
NAIP - Institutional Charges	8,155	-
Royalty (TOT) fees	600,000	-
Rent Received	18,000	-
Tender Fees (Non Refundable)	3,000	-
Provision for Fringe Benefit Tax written back	47,101	-
Sundry Balances written back(net)	858,406	-
TOTAL	15,428,738	3,411,110

SCHEDULES FORMING PART OF BALANCE AS AT 31ST MARCH, 2012

SCHEDULE 11 - COST OF MATERIALS, CHEMICALS AND STORES

PARTICULARS	Rs. 2011-12	Rs. 2010-11
Laboratory Chemicals, Stores & Spares Consumed	24,549,133	16,793,003
(Increase) / Decrease in Stock	1,309,550	(1,306,991)
TOTAL	25,858,683	15,486,013

SCHEDULE 12 - ESTABLISHMENT EXPENSES

Salaries, Wages and Allowances	31,339,218	36,229,106
Contribution to Provident , Gratuity and Other Funds	2,331,173	6,682,884
Staff Welfare Expenses	1,731,508	971,868
TOTAL	35,401,899	43,883,858

SCHEDULES FORMING PART OF BALANCE AS AT 31ST MARCH, 2012

SCHEDULE 13 - OTHER ADMINISTRATIVE EXPENSES

PARTICULARS	Rs. 2011-12	Rs. 2010-11
Rent	-	26,200
Power and Water Charges	7,057,190	6,589,310
Repairs & Maintenance on Plant & Machinery & other Assets	4,347,449	3,237,873
Technology transfer fees		
Insurance	383,456	776,382
Rates and Taxes	479,254	221,697
Vehicles Repairs and Maintenance	287,277	229,661
Postage, Telephone and Communication Charges	437,660	334,175
Printing and Stationary	352,342	478,869
Travelling and Conveyance Expenses	1,118,018	1,686,361
Expenses on Seminar/Workshops/Conference	1,002,561	352,650
Subscription Expenses	3,200	145,277
Audit Fees	117,772	139,530
Professional Charges	2,006,284	1,231,678
Finance Charges	263,318	602,038
Freight and Forwarding Expenses	1,231,359	425,981
Advertisement Expenses	510,640	412,048
Miscellaneous Expenses	726,495	664,032
Sundry Balances written off		
Sundry balances written off	-	5,670,086
Provision for Doubtful Debts	500,000	-
Foreign Exchange Loss/Gain	-	3,985
Vendor Registration Fees	11,000	-
(Profit)/Loss on Sale of Asset	15,395	-
TOTAL	20,850,669	23,227,833

SCHEDULES FORMING PART OF BALANCE AS AT 31ST MARCH, 2012

SCHEDULE 14 - SIGNIFICANT ACCOUNTING POLICIES:

A. ACCOUNTING CONVENTION:

The financial statements are prepared on the basis of historical cost convention and on the accrual method of accounting and in accordance with the applicable Accounting Standards issued by The Institute of Chartered Accountants of India, except where otherwise stated.

B. USE OF ESTIMATES

The presentation of financial statements requires the management to make estimates and assumptions that affect the reported amount of assets and liablities on the date of financial statements and reported amount of revenues and expenses during the reporting period. Differences between the actual results and estimates are recognised in the period in which the results are known / materialised.Although these estimates are based upon management best knowledge of current event and actions, actual results could differ from these estimates

C. INVENTORY

Developed Rubber Products, Materials, Chemicals Stores, Spares and Scrap materials are valued at lower of cost and net realisable value. Cost of Materials, Chemical, stores and spares conprises of purchase cost and cost of conversion. Developed rubber products includes cost of conversion and other cost incurred in bringing them to their present location and condition. Inventory is valued on FIFO basis.

D. FIXED ASSETS

a) Fixed Assets are stated at cost of acquisition inclusive of inward freight, duties and taxes and incidental and direct expenses related to acquisition.

b) Assets acquired under sponsored projects are capitalised in the year of acquisition, at cost.

c) Costs relating to acquisition of Software which are not an integral part of the related hardware is capitalised as Intangibles

E. DEPRECIATION:

Depreciation is provided on written down value method as per Income Tax Rules from the year of their Capitalisation, including assets created out of Government and other Grants, except for assets acquired under NAIP Projects.

Assets Purchased / Acquired under NAIP Projects, depreciation for the year is provided on straight line method at the rates stipulated for NAIP project assets. NAIP assets purchased in the year for a sum of less than Rs. 10000/- each are depreciated at the rate of 100% retaining a residual value of Rs. 1/-. Depreciation on additions during the year is provided for the whole of the year.

Cost of Leasehold land is not amortised over the lease period

F. GOVERNMENT AND OTHER GRANTS:

Government / Other Grants are accounted when there is a reasonable assurance that the association will comply with the conditions attached to them and there is reasonable certainty of its receipts.

Grants relatable to depreciable Fixed Assets are treated as Deferred Income and recognised in the Income and Expenditure Account in proportion in which depreciation is charged. Recurring revenue expenditure towards Sponsored Projects are appropriated from the fund and are recognised in the Income & Expenditure account.

G. REVENUE RECOGNITION:

a) Sponsored Projects representing items developed by the association are generally accounted at the time of delivery and when the risks and rewards are transferred

b) Testing and Training fees are recognised as Income at contracted rates on rendering of the service.

c) Interest Income is accounted at contracted rates on time proportion basis.

SCHEDULES FORMING PART OF BALANCE AS AT 31ST MARCH, 2012

H. FOREIGN EXCHANGE TRANSACTIONS:

Transactions arising in foriegn currencies during the year are recorded at the exchange rates prevailing on the dates of the transactions.Foriegn currency monetary items are converted into Rupees equivalent at the exchange rates prevailing as on Balance Sheet date. Non- Monetary items are carried at historical cost denominated in a foriegn currency and are reported using the exchange rate at the date of transaction. Exchange differences arising on settlement /restatement of monetary items are recognised as income or as expenses in the year in which they arise.

I. EMPLOYEE BENEFITS:

a) Defined Contribution Plans

The Association contributes to a defined contribution plan to Employees Provident Fund which is administered by the Regional Provident Fund Authority, and has no further obligation beyond making its contribution, which is expensed in the year to which it pertains.

Defined Benefit Plans

The liability for Gratuity is determined on the basis of an actuarial valuation as at the end of the year, which is calculated using Projected Unit Credit Method. Actuarial gains and losses which comprise experience adjustment and the effect of changes in actuarial assumptions are recognized in the Income and Expenditure Account. The Gratuity Fund is administered by Trust through the Group Scheme of Life Insurance Corporation of India. The premium paid is charged to Income and Expenditure account.

b) The employees are entitled to leave as per the leave policy of the association. The liability in respect of unutilized leave balances is provided based on actuarial valuation as at the end of the year,calculated using Projected Unit Credit Method

J. INCOME TAX:

The Association is notified under section 10 (21) of the Inccome Tax Act, 1961 and is exempted from payment of Income tax.

K. PROVISIONS AND CONTINGENT LIABILITIES:

The Association recognises a provision when there is a present obligation as a result of a past event that probably requires an outflow of resources and a reliable estimate can be made of the amount of the obligation. A disclosure for a contingent liability is made when there is a possible obligation or a present obligation that may, but probably will not require an outflow of resources. Where there is a possible obligation or a present obligation that the likehood of outflow of resources is remote, no provision or disclosure is made.Contingent asset are neither recognised nor disclosed in the financial statement

SCHEDULES FORMING PART OF BALANCE AS AT 31ST MARCH, 2012

SCHEDULE 15 - NOTES ON ACCOUNTS

1. CONTINGENT LIABILITIES :

In respect of :-

a Unpaid amount to Maharashtra Labour Welfare Fund Rs.30366 /-(Rs. 30366/-)

b. Performance Bank Guarantee given by the association Rs. 10581867 (Rs. NIL)

Estimated amount of contracts remaining to be executed on Capital account (net of advances) and not provided for Rs NIL (Rs 4,20,000)

2

3 Confirmation of Balances as on 31st March 2012 in respect of Deposit Accounts received from bank amounts to Rs 8,22,26,750/- whereas amount reflected in the books of accounts amounts to Rs 8,20,80,020/-. The management is in the process of reconciling the difference of Rs 1,46,730/-, subject to which the balances have been reflected as per the books of accounts.

4 Pending reconciliation of amount of Taxes deducted at Source (TDS) with the relevant income tax records, the amount of TDS receivable amounting to Rs.82,63,774/- has been reflected as per the books of accounts. The management has initiated the process of regularising the exemption granted vide notification no. 32 F No. 10/3063 - IT(AI) under section 10(21) read with clause (ii) of sub-section (1) of section 35 of the Income Tax Act , 1961 exempting the association from payment of Income Tax and also filing necessary income tax returns for the respective assessment years and is hopeful of recovery of the TDS.

5 In absence of a Central Stores Department and maintenance of stock registers and periodic reconciliations with regards to receipts / issues and closing stocks, inventories have been taken and valued based on the verification conducted by the management as at the year end.

6 Balances under the head Loans and advances, Sundry Debtors, Creditors, and deposits are as per the books of accounts and are subject to confirmations, reconciliation and consequential adjustments, if any. In the opinion of the Management, the current assets, loans and advances have a value on realisation in the ordinary course of business, equal at least to the aggregate amount shown in the Balance Sheet.

7 Depreciation is provided on SLM basis on additions during the year acquired under "National Agricultural Innovation Projects" as prescribed by Indian Council of Agricultural Research and is not in strict compliance with the Accounting Standards issued by the Institute of Chartered Accountants of India. The management has not quantified the impact of the same, as in its opinion the charge on account of depreciation is not likely to be materially significant.

8 GOVERNMENT GRANTS

During the year, a sum of Rs. 292 lacs (Rs 300 Lacs) has been received as Plan Grant from Govt. The amount so received has been credited to "Contribution for Sponsored Research Project" and the expenditure incurred during the year on these approved projects in the nature of Capital Expenditure to the tune of Rs122.74 Lacs (Rs 499.27 Lacs) have been capitalised in the books of accounts and Recurring Expenditure, if any, is considered in the Income and Expenditure account, where applicable. The balance representing unspent funds to be utilised later is temporarily invested in term deposits with Scheduled Banks and is disclosed seperately in the Balance Sheet.

During the year there has been no receipt of Non plan Grant from the Government.

9 FOREIGN CURRENCY EXPENDITURE

	2011-12	2010-11
	Rs.	Rs.
Capital Expenditure	**8266272**	-
Travelling Expenses	**24612**	-

10 NAIP PROJECT

a. During the year 2008-09, the association was awarded a project for "A Value chain for coconut fibre and its byproducts : Manufacture of diversified products for higher value and better marketablity to enhance the economic returns of farmers" to be operated under consortium mode, by National Agricultural Innovation Project (NAIP) of Indian Council of Agricultural Research (ICAR). The total budgeted award for 2008-09 to 2011-12 is Rs.59,13,000/-. During the year, the association has incurred Rs.43,455/- (Rs. 90,339/-) towards Institutional charges. The association has incurred a sum of Rs.13,34,816/- (Rs. 15,05,229/-) towards recurring expenses which is considered in the Income and Expenditure account and has been adjusted against NAIP funds. Also a sum of Rs. 4,68,310/- (Rs. 16,80,431) has been incurred for non recurring exenses i .e for purchase of Equipments. During the year the association has received a total sum of Rs.8,98,408/- (Rs. 28,66,420/-) and at the year end the unspent balance of Rs.20,78 285/- (Net) (Rs. 26,15,329/-) is reflected as balance fund in hand from NAIP under the head "PROJECT FUNDS"(Refer Schedule 3).

b. During the year 2007-08, the association was awarded a project for "Design and Development of Rubber Dams for Watersheds" to be operated under consortium mode, by National Agricultural Innovation Project (NAIP) of Indian Council of Agricultural Research (ICAR). The total budgeted award for 2007-08 to 2011-12 is Rs.3,14,00,000/. During the year, the association has accrued Rs.98,362/- (Rs 6,07,000/-) towards Testing Income and Institutional charges which are receivable from NAIP . Further, the association has incurred a sum of Rs.23,71,874/- (Rs. 16,50,035/-) towards recurring expenses which is considered in the Income and Expenditure account and has been adjusted against NAIP funds. Also a sum of Rs. Nil (Rs. NIL) has been incurred for non recurring exenses i .e for purchase of Equipments .During the year the association has received a total sum of Rs 21,38,047/- (Rs 26,21,234/-) and as at the end of the year the balance of Rs.1,36,85,794/- (net) (Rs 1,46,38,000/-) is reflected as balance fund in hand under the head "Project Funds"(Refer Schedule 3) and amount of Rs.1,24,067/-((Rs.4,88,615 payable} is reflected as receivable from NAIP under the head "Loans and Advances".

SCHEDULES FORMING PART OF BALANCE AS AT 31ST MARCH, 2012

SCHEDULE 15 - NOTES ON ACCOUNTS (Contd.

c) Details of Sponsored Projects Expenses

Particulars	Rubber Dam Project		Coir Project	
	2011-12	2010-11	2011-12	2010-11
		Rs.		Rs.
Testing & Evaluation	-	-	76438	152,987
Travelling Allowance/Daily Allowance	55017	136,748	46411	70,078
Workshop	43199	94,703		-
Salaries, Wages & Allowances	445534	670,934	269603	248,258
Consumables & Chemicals	85852	750,686	256186	303,700
Stationery & Postage etc	738	8,553	2902	24,978
Outsourcing	-	183,977	-	98,500
Advertsement , Octroi etc.	-	25,955	401	17,178
Moulding & Calendering	-	51,507	-	149,700
Vehicle Hiring / Running	-	55,393	609	57,990
National Training	-	-	50229	40,617
Repairs - Plant & Machineries	24938	107,993		-
Institutional Charges	98362	187,984	43455	90,339
Expenses as per NAIP Certification	753,640	2,274,433	746,234	1,254,325
Adjustments *	1,618,234	(624,398)	588,582	250,904
Expenses as per Books	2,371,874	1,650,035	1,334,816	1,505,229

* Expenses on above sponsored projects and balances outstanding are stated as per the books of accounts, and are subject to reconciliation and consequential adjustments.

11 Micro, Small & Medium Enterprises Development Act 2006 (MSMED)

The Management has initiated the process of identifying enterprises, which have provided goods and services to the association, and which qualify under the definition of micro and small enterprises as defined under Micro, Small and Medium Enterprises Development Act, 2006. Accordingly, the disclosure in respect of the amounts payable to such enterprises as at 31st March, 2012 is not done as no information is received for the same. Further, in the view of the Management, the impact of interest, if any, that may be payable in accordance with the provisions of the Act is not expected to be material.

12 Prior Period Items

	2011-12	2010-11
Sponsored Projects - BARC - Electron Beam Projects Receipts	1,046,129	-
Sponsored Project - Dept of Science & Technology Receipts	1,494,088	-
Fuel Expenses	(141,039)	
	2,399,178	-

SCHEDULES FORMING PART OF BALANCE AS AT 31ST MARCH, 2012

SCHEDULE 15 - NOTES ON ACCOUNTS (Contd.

13 Employee Benefits

During the year, the company has recognised the following in the Profit & Loss Account.

Particulars	Gratuity Funded Rupees	
	2011-12	2010-11
Change in the present value of the defined benefit obligation		
Opening defined benefit obligation at 1st April 2011	8,247,529	4,578,503
Current Service Cost	617,210	673,315
Interest Cost	680,421	55,911
Actuarial losses (gains)	(783,966)	3,094,680
Benefits paid	(278,681)	(154,880)
Closing defined benefit obligation at 31st March 2012	8,482,513	8,247,529
Change in Plan Assets		
Opening fair value of plan assets at 1st April 2011	4,654,847	3,900,791
Expected Return on Plan assets	408,456	368,905
Contributions by employer	-	551,183
Benefit Paid	(232,904)	(154,880)
Actuarial Gains / (Losses) on Plan Assets	(34,428)	(11,152)
Closing fair value of plan assets at 31st March 2012	4,795,971	4,654,847
Reconciliation of present value of the obligation and fair value of the plan assets		
Present Value of Funded obligation at 31st March 2012	8,482,513	8,247,529
Fair Value of Plan assets at 31st March 2012	4,795,971	4,654,847
Deficit/(surplus)	-	-
Unrecognised past service cost	-	-
Net Liability/(Asset)	3,686,542	3,592,682
Amount Recognised in the Balance Sheet		
Liabilities	8,482,513	8,247,529
Assets	4,795,971	4,654,847
Net Liability / (Asset) recognised in Balance Sheet	3,686,542	3,592,682
Net Cost recognised in the profit and loss account		
Current Service Cost	617,210	673,315
Interest Cost	680,421	55,911
Expected return on plan assets	(408,456)	(368,905)
Net actuarial losses (Gain) recognised during the year	(749,538)	3,105,832
Total costs of defined benefit plans included in Schedule 12 "Employees Remuneration & Benefits"	139,637	3,466,153
Reconciliation of expected return and actual return on Plan Assets		
Expected Return on Plan Assets	408,456	368,905
Actuarial Gain/ (loss) on Plan Assets	(34,428)	(11,152)
Actual Return on Plan Assets	374,028	357,753

SCHEDULES FORMING PART OF BALANCE AS AT 31ST MARCH, 2012

SCHEDULE 15 - NOTES ON ACCOUNTS (Contd.

	31.03.2012	31.03.2011
Category of Assets		
L.I.C. Group Gratuity (Cash Accumulation) Policy	100%	100%

Principal actuarial assumptions:

Particulars	31.03.2012	31.03.2011
Discount Rate	8.50%	8.25%
Expected Rate of return on Plan Asset	9%	9%
Salary Escalation	6%	6%

The estimates of future salary growth, factored in actuarial valuation, take account of inflation, seniority, promotion and other relevant factors such as supply and demand in the employment market.
Such estimates are very long term and are not based on limited past eperience / immediate future. Empirical evidence also suggests that in very long term, consistent high salary growth rates are not possible.

Amounts for the Current & Previous Period are as follows;	31.03.2012	31.03.2011
	Rupees	
Defined Benefit Obligation	8,482,513	8,247,529
Plan Assets	4,795,971	4,654,847
Surplus / (Deficit)	3,686,542	3,592,682
Experience Adjustments on plan liabilities	(619,054)	(6,995,470)
Experience Adjustments on plan assets	34,428	11,152

* The management has relied on the overall acturial valuation conducted by the Actuary. However, experience adjustments on plan assets and liabilities are not readily available and hence not disclosed.

Other Long Term Liabilities

Leave Encashment	31.03.2012	31.03.2011
	Rupees	
Present Value of obligation at 31st March 2012	4,619,941	4,969,913
Plan assets	-	-
Net Liability/(Asset)	4,619,941	4,969,913

No other disclosures have been furnished as per Para 132 of Accounting Standard 15(Revised 2005)- "Employee Benefits".
The estimates of Future salary growth, factored in acturial valuation, take account of inflation, seniority, promotion and other relevant factors such as supply and demand possible

Defined Contribution Plan

	Rupees	
	31.03.2012	31.03.2011
Employers Contribution to Provident Fund*	1,817,183	2,826,637

* included in "Contribution to Provident,Gratuity and other funds"

SCHEDULES FORMING PART OF BALANCE AS AT 31ST MARCH, 2012

Receipts and Payments Account for the year ended 31st March 2012

Receipts	Current Year (Rs.)	Previous Year (Rs.)	Payments	Current Year (Rs.)	Previous Year (Rs.)
Opening Balances :					
Cash on hand	48,386	21,993	Laboratory Chemicals, Stores & Spares	22,991,850	25,347,986
Bank current accounts	46,532,064	15,841,274			
			Establishment Expenses	35,658,011	38,794,913
Sponsored Projects / Testing Income	141,393,396	130,471,730	Administrative Expenses	15,067,571	18,412,725
Training / Workshop Fees	1,555,284	1,549,378	Fixed Assets purchased	13,891,003	51,387,949
Interest on Term Deposits	4,258,469	3,250,414	Recurring Expenses NAIP Projects	3,706,690	3,155,264
Annual Fees/Subscriptions	808,619	778,081	Margin monies paid	-	2,992,000
Other Income	7,759,723	414,477	Investments in Term Deposits (Net)	115,245,451	4,967,420
Life Membership Contribution	1,700,000	300,000	Income Tax deducted at Source	5,276,165	1,818,977
Admission Fees	100,500	162,000			
Advance from Customers	(14,579,358)	4,788,783			
Government Grants	29,200,000	30,000,000			
Contribution For NAIP Projects	3,036,455	5,487,654			
Staff Loans	348,040	391,900			
Sale of Fixed Asset	36,500	-			
			Closing Balances :		
			Cash on hand	30,230	48,386
			Bank current accounts	10,331,106	46,532,064
TOTAL :	222,198,078	193,457,684	TOTAL :	222,198,078	193,457,684

Vide our report of even date

For M. M. NISSIM AND CO.
Chartered Accountants

For INDIAN RUBBER MANUFACTURERS' RESEARCH ASSOCIATION

(N.KASHINATH)	**(Dr. P. THAVAMANI)**	**(Dr. RAGHUPATI SINGHANIA)**
PARTNER	**DIRECTOR**	**PRESIDENT**

Place : Mumbai
Date :

Our Members: Our Patrons

Ambey Udyog,
Haryana

Ameya DyechemPvt. Ltd.,
Vadodara

Anabond Limited,
Chennai – 600 041

Apollo Tyres Ltd.,
Haryana – 122 001

Arvico Rubber Industries
Mumbai – 400 063

Ashapura Rubber Udyog
Nasik – 422 001

Ashok Rubber Works
Mumbai – 400 052

Atur Rubber Products
Mumbai- 400 018

A.B.C. Rubber Products,
Ahmedabad – 380 002

Advance Rubber Industries,
Dahanu Road – 401 602

B.D.K. Process Controls P Ltd,
Hubli – 580 030

Basant Rubber Factory Ltd.
Mumbai – 400 083

Belmont Rubber Industries
Faridabad – 121 001

Best Rubber Products
Mumbai – 40 063

Bharat Leather & Rubber Industries,
Mumbai – 400 063

Bhavna Polymers
Ahmedabad – 380 004

Blaze Enterprise
Nasi – 422 010

Blue Diamond Industries Ltd
Muzaffarnagar – 251 001

Bombay Oil Seals Co.
Mumbai – 400 086

Brahans Polymers Pvt.Ltd.
Nav Mumbai – 400 709

Bymer Elastomers
Nasik – 422 010

Bajaj Industries
Haryana

Camata Enterprises
Mumbai – 400 072

Caravan Engineers,
Pune -411 037

Ceat Limited
Mumbai – 400 078

Chadha Rubber Pvt. Ltd.
New Delhi – 110 020

Chopra Retec Rubber Products Limited,
Lucknow - 226 001

Devkishin Polymers
Vasai (E) – 401 208

Dhanani Rubber Industries
Jamnagar – 361 002

Elastomeric Engineers
Salem – 636 201

Eliokem India Pvt.Ltd.
Mumbai – 400 059

Eltech Rubber (India) P.Ltd
Mumbai – 401 104

Essen Specialities
Mumbai – 401 104

Exel Rubber Limited
Hyderabad - 38

Gala Precision Eng.P.Ltd
Thane – 400 604

Garware Elastomerics Limited
Pune – 411 019

Gold Seal Engg.Product P.Ltd
Mumbai – 400 078

Gosalia Rubber Industries
Goa – 403 706

Gujarat Reclaim & Rubber Products Ltd.,
Mumbai – 400 086

Hawkins Cookers Limited
Thane – 400 604
Hind Elastomers Pvt.Ltd
Mumbai – 400 006

HNM Rubber Products Pvt. Ltd.
Coimbatore – 641 108

Inarco Limited
Thane – 400 601

India Cofee & Tea Dist.Co.Ltd.
Mumbai – 400 001

Indica Chemical Industries Ltd
Noida – 201 301

Indica Conveyors Limited
Amritsar – 143 501

Innova Rubbers Pvt.Ltd.,
Nashik – 422 010

Innovative Tyres & Tubes Ltd
Mumbai – 400 069

J. Sons Company Limited,
Meerut – 250 002 U.P.

J.K.Rubber Products
Kanhangad – 671 531

Jai Hind Rubber Products (P) Ltd.Mumbai – 400 07

Jayashree Rubber Industries
Mumbai – 400 002

Joseph Leslie Drager Mfg Pvt Ltd.
Mumbai – 400 028
Kantilal Chotalal & Co.
Mumbai – 400 060

Kaypan Vanijya Pvt.Ltd.
Mumbai – 400 083

Khosla Profil Pvt.Ltd.,
Mumbai

Kwality Polymers Pvt.Ltd
Thane – 400 604

Larsen & Toubro Ltd. (Switchgear)
Mumbai – 400 072

Lathia Ruber Mfg.Co.Pvt.Ltd
Mumbai – 400 072

L.G.Balkrishnan & Bros.Limited
Karur – 639 002

Leo Rubber Industries
Ahmedabad – 382 405

Madhu Silica Pvt.Ltd.
Bhavnagar – 364 004

Mahant Industries
Belgaum – 591 113

Manisha Rubber Enterprises
Mumbai – 400 080

Mansons Auto International
Kamothe – 410 209

Makwell Organics Pvt.Ltd
Mumbai

Mask Polymers Pvt.Ltd.
Talawade – 412 114

Meenakshi Molding Pvt Ltd
Chennai – 60 096

Metachem
Karnataka

Modern Rubbers
Gandhinagar ,Gujarat

Modern Rubber Company,
Sindudurg, Maharashtra

MRF Ltd.,
Chennai – 600 006

Mysore Polymers & Rub.Pro.Pvt. Ltd.
Mysore – 570 016

Nandi Rubber Industries Pvt. Ltd.- Medak - 502 325

National Organic Chemical Industries Ltd.
Navi Mumbai – 400 705

National Rubber Factory
Jaipur

OM Polymers
Baroda – 390 020

Omega Speciality Techno Chem Pvt.Ltd.
Pune - 411 009

Packwell Industries
Delhi – 110 095

Paradise Rubber Pvt. Ltd.,
Mumbai – 40 001

Pelican Rubber Pvt.Ltd.
Hyderabad - 500 012

Phoenix Yule (P) Limited
Dist. Nadia – 741 234

Pidilite Industries Limited
Mumbai – 400 059

Polestar Rubber Industry,
Hyderabad

Polmann India Limited,
Mumbai – 400 021

Polybond India Pvt. Ltd.
Pune – 412 105

Polygold Precured Sys.
Pvt. Ltd.

Polymer Products of India

Prabhat Elastomers Pvt. Ltd.

Prasad Engineering Works

Prasad Polymers
Mumbai – 400 090

Precise Industries
Mumbai – 400 063

PRS Permacel Pvt. Ltd.,
Mumbai – 400 072

PRS Tyres Limited
Tamilnadu

Pushpak India Company
Ahmedabad

Rainbow Industries

Rajyog Care Solutions P.Ltd

Raksha Polycoats Private Limited
Bhosari – 411 026

Rane Elastomer Processors
Mumbai – 400 068

Rare Earth International
New Delhi – 110 001

Raychem Rpg Limited.,
Vasai

Reliance Rubber Industries
Valsad

Revertex KA Latex(India) P.Ltd.

Rishabh Industries
Ahmedabad

Rishiroop Polymers Pvt.Ltd.

Rockford Rubber Text (I) Ltd.

Roop Polymers Ltd.,
Gurgaon – 122 001

Royal Plastic Industries
Pvt. Ltd.,
Mumbai – 400 068

Rubber Industries (India)
Mumbai – 400 093
Runwin Rubber Industries
Jamnagar

Sai Rub Industries
Jammu

Samsaa Rubber & Polymers
Pvt. Ltd.

Schmalz India Pvt.Ltd.
Pune – 411 026

Schnell Global Industries
Chakan – 410 501

Schrader Duncan Ltd.
Mumbai – 400 080

Seed Rubber Products
Mumbai – 400 059

Senna Polymers
Chennai – 600 089

Shiv Tube Mfg. Co

Shiva Enterprises
New Delhi – 110 041

Shukla Rubber Pvt. Ltd.
Gujarat – 360 002

Shuraksha Products P.Ltd

Sona Industrial Elastomers
Karnataka

Standard Oringsham
Mumbai – 400 063

Sudeep Rub-Chem Pvt.Ltd.

Sujan Industries
Mumbai – 400 093

Sun Petrochemicals Pvt.Ltd.
Mumbai – 400 093

Suraksha Products Pvt.Ltd.

Syndicate Wiper Systems
Pvt Ltd
Navi Mumbai – 400 701

T.M.Tyres Limited

Taprath Polymers Pvt.Ltd.
Mumbai – 400 053

TCS Rubber Industries
Gujarat

Technocraft Industries (I) Ltd.,
Thane – 421 401

Tega Industries Ltd.
Calcutta – 700 053

Thacker Brothers
Kulgaon – 421 503

The Rubber Products Ltd.
Mumbai

Toja Tyre & Treads Pvt. Limited
Kerala – 683 574

TVS Srichakra Limited
Madurai – 625 002

Tyresoles (India) Pvt.Ltd
Mumbai – 400 042

Umiya Carbon Pvt. Ltd.

United Rubber Indust.(I) P.Ltd
Bhayandar – 401 105

Unity Rubber Industries
Ankleshwar, Gujarat

Universal Oil Seals Mfg. Co. P. Ltd,
Mumbai – 400 070

Vaid Elastomer Processors Ltd.,
Navi Mumbai – 400 701

Vajra Rubber Products (P) Ltd.
Kerala – 680 123

Vako Seals Pvt.Ltd.
Mumbai – 400 063

Vinsar Elastomer
Hosur – 635 109

Wilson Engineering Works
Mumbai – 400 018

Yash Polymers
Surat

KGJ Rubbe Udyog
Jaipur

Hi-Tech Rubber Industries,
Gandhi Nagar, Gujarat

DewliteRubber Products Pvt. Ltd.,
Jamnagar, Gujarat

Niljay Industries,
Aurangabad

IRC Tubes,
Kolkata

Royal Carbon Black Pvt. Ltd.,
Mumbai

Fenner (i) Ltd.,
Madurai

Lord International
Haryana

Arrow Rubber Factory,
Chittor, Andhra Pradesh

Jaipur Magmatics Pvt. Ltd.,

Deccan Rubber Industries,

SRJ Polymers,
Rajasthan

GC Tyres and Tubes (P) Ltd.,
Andhra Pradesh

Katson Polymers,
Karnataka

Thejo Engineering Ltd.,
Chennai

R R Industries,
Andhra Pradesh

RP Industries
Tamil Nadu
Concept Engineering
Thane

Headway Chemicals
Pune
Mithila Rubber Products Pvt. Ltd.,
Gujarat

Json Polymer,
Mumbai.

Best Marketing,
Ahmedabad

Eastern Treads Ltd.,
Kerala

Jayakanth Rubber Products P Ltd.,
Bangalore

Vikas Rubber Industries,
Delhi

Elcon Products,
Thane, Mumbai

Eaton Technologies Pvt. Ltd.,
Pune

Polyhose India (Rubber) Pvt. Ltd.,
Chennai

Jai Lakshmi Industries,
Ahmedabad

Apar Industries Limited,
Mumbai

JCB India Ltd.,
Faridabad, Haryana

PTFE Rubber Works,
Mumbai

Precision Rubber Industries,
Mumbai

Triveni Rubber
Thane, Mumbai

Lion Rubber Industries Pvt. Ltd.,

Wriston Polymers Private Ltd.,
Chennai

Anoop Enterprises
Mumbai

Sigachi Group of Companies
Hyderabad

Super Hose Industries Pvt. Ltd.,
Himachal Pradesh

Galvanisers India
Mumbai

Chemische Global Pvt. Ltd.,
Pune

Jaggernaut Auto Industries,
Gujarat
Newage Fire Protection Inds. Pvt. Ltd.,
Mumbai

Choksey Chemicals Pvt. Ltd.,
Mumbai

Scorpion Industrial Polymers Pvt. Ltd.,
Chennai

Divekar Wallstabe and Schneider Precision Seals Pvt. Ltd.
Thane, Mumbai

Bhavick Enterprises
Gujarat

Kross International,
Solapur

Kwality Polymers Pvt. Ltd.,
Mumbai

Agarwal Rubber Limited
Andhra Pradesh - 502 320

AGG Exports
Ludhiana

Birla Tyres
Haridwar – 247 663

Cheng Shin Rubber Ind. Co. Ltd.,
Maxxis, Taiwan

Continental Automotive Components (I) Pvt. Ltd.,
New Delhi – 110 019

Ceat Limited
Mumbai – 400 078

Dow Chemicals International Pvt. Ltd.,
Pune

Falcon Tyres Limited
Karnataka – 570 016

Goodyear India
Aurangabad - 431 136

Guangzhou / Pearl River Rubber Tyre Ltd.,
China – 510 928

Malhotra Rubber Ltd.,
New Delhi

Michelin India Tyres Pvt. Ltd.,
New Delhi – 110 076

MRF Limited
Chennai

Pirelli Tyres (Suisse)
South Africa

Super King Tyres P. Ltd.,
New Delhi – 110 095

Wabco TVS (India) Ltd.,
Chennai – 600 059

Braza Tyres (P) Ltd.,
Himachal Pradesh

Emerald Resilient Tyre Mfrs. Pvt. Ltd.,
Chennai

Era Global Standards Certification,
Delhi

* * * * * * * * *

LIFETIME MEMBERS:

Agarwal Rubber Limited
Andhra Pradesh - 502 320

AGG Exports
Ludhiana

Birla Tyres
Haridwar – 247 663

Cheng Shin Rubber Ind. Co. Ltd.,
Maxxis, Taiwan

Continental Automotive Components (I) Pvt. Ltd.,
New Delhi – 110 019

Ceat Limited
Mumbai – 400 078

Dow Chemicals International P. Ltd.,
Pune

Falcon Tyres Limited
Karnataka – 570 016

Goodyear India
Aurangabad - 431 136

Guangzhou / Pearl River Rubber Tyre Ltd.,China – 510 928

Malhotra Rubber Ltd.,
New Delhi

Michelin India Tyres Pvt. Ltd.,
New Delhi – 110 076

MRF Limited
Chennai

Pirelli Tyres (Suisse)
South Africa

Super King Tyres P. Ltd.,
New Delhi – 110 095

Wabco TVS (India) Ltd.,
Chennai – 600 059

Braza Tyres (P) Ltd.,
Himachal Pradesh

Emerald Resilient Tyre Mfrs. P. Ltd.,
Chennai

Era Global Standards Certification,
Delhi

Machineries & Equipments

Chemical Section

FTIR Spectrophotomer with ATR (Nicolet 6700)
FTIR Spectrometer (Perkin Elmer Paragon 1000)
CHNS Analyzer (TRUSPEC –CHNS MICRO)
High Pressure Liquid Chromatograph (HPLC/GPC Agilent 1100)
GCMS with Pyrolyser / FID (Shimadzu GC -17A)
ICP – Spectrophotometer (Spectrociros CCD)
Weather-O-Meter (Atlas Model Ci3000 W)
Low temperature Retraction Rigidity
Low Temperature Brittleness Tester (Nivtech)
BET Surface Area Analyzer (Smart Instrument SORB90)
Flammability Tester
Brookfield Viscometer (Brookfield DV-II)
IR Spectrophotometer(Perkin Elmer 1310)
Gas Chromatograph – GC 2014
Submicron Particle Sizer – Nicomp 380
UV Spectrophotometer-SHIMADZU 1800

Thermal Section

Dynamic Mechanical Analyser (DMA) (VA-4000) METRAVIB
Servo Hydraulic Machine (Instron Make)
Stress Relaxometer
Differential Scanning Calorimeter (DSC-7) PerkinElmer
Differential Scanning Calorimeter (Q-10)-TA instrument
TGA Pyris 1 PerkinElmer
Thermo Gravimetric Analyser (TGA – 7) -PerkinElmer
Thermo Gravimetric Analyser (TGA–6) with auto sampler, PerkinElmer
Thermogravimetric Analyser (Q-50)-TA instrument
Izod – Impact Tester
Melt Flow Index Tester
Vicat Softening Point Tester

Creep Testing Equipment:

Compression
Torsion

Physical Section

Rheometer Model-R-100, Monsanto
Mooney Viscometer, LABTECH
Rubber Processability Analyser (RPA), ALPHA TECHNOLOGIES, USA
Universal Testing Machine (10000kg, 500 kg)
Universal Testing Machine Zwick (500 kg)-STAR Make
Milli Megohm Meter (Model LS-3)
Universal Testing Machine with video extensometer - INSTRON
Rubber Hardness Tester-(IRHD), Dead Load etc.
DIN Abrasion Tester (2Nos)
Taber Abrasion Tester(USA)
Dunlop Tripsometer
De-mattia Flexing Machine
Ross Flexing Machine
Ozone Chamber (2 nos)
Deflection Tester for diaphragms
Air/Gas Permeability Tester
Goodrich Flexometer
Carbon Black Dispersion Tester
High Voltage Tester (40 KV)
Gamma Chamber (2500 Ci)
Shock Absorption Tester

Supporting facilities

Pelletalizer
Humidity Chamber (Nivtech)
High Pressure Reactor
High Pressure Hose testing Machine
Electronic Balances (4 nos)
Multicell Ageing Oven
Oxygen/Air Bomb Tester
Air Circulating Ageing Ovens (9 nos)
Hydro Pneumatic Pump
UV Chamber(Nivtech)
Cryo Test Chamber up to 80°C (Nivtech)
Cryo Test Chamber up to 30°C with sealant test facility (Nivtech)

Processing & Other Equipment:

Re-treading Machine

Mixing:

Banbury Mixer (FA 40) – 35 liter Capacity
Mixing Mill
6" x 13" – 2 nos.
12" x 30" – 1 no.
16" x 42" - 1 no.
Brabender Plasticorder with extruder
(Model PL–2200)

Moulding Press:

Twin Hydraulic Press of sizes
12" x 12",
14" x 14"
Hydraulic Press
36" x 36" – 1 no.
47" x 47" – 1 no.
1 mtr x 2 mtr – 1 no.
Vacuum Compression Press – Panstone
Rubber Injection Moulding Machine – REP Make (1000cc Capacity)
Plastics Injection Moulding Machine (Engel USA)

Calander:

3 Rolled Calender – Lab Size – 1 no.
3 Rolled Calender – 16" x 48" size – 1 no.

Extruder:

3" Cold Feed Extruder
6" Hot Feed Extruder
Twin Screw Extruder with feeder

Auto Clave:

4' x 8' length Auto clave (Indirect type) 1no.
2' x 8 mtrs length Autoclave (direct type) 1 no.
Boiler 300S (Thermax Make).- 1 no.

Nano & Latex Section:

Particle Size Analyser
MST (Mechanical Stability Tester)
Surface Tensimeter
Dipping Machine
Thread Unit
Foam Forming Equipment
Hot Air Oven
Ball Mill for Latex & Dispersion Mill
Colour Spectrophotometer
Micro Wave Oven

Tool Room / Maintenance Section:

CNC Milling Machine (Hardinge Make)
Universal Milling Machine (Vertical & Horizontal)
Radial Drill Machine
Surface Grinding Machine (Manual)
Hydraulic Surface Grinding Machine
Centre Lethe Machine
Bench Grinding Machine
High frequency Welding Machine
Hose Bursting Pressure Machine
Air Compressors

Tyre Testing Machineries to Shereography:

Tyre Endurance Testing Machine for Scooter, Passenger car, Truck and Bus etc with Rolling Resistance attachment.
Noise, Vibration & Harshness Testing
Universal Testing Machine with plunger test
Bead Unseating facility, foot print and pressure analysis.

ROLL OF HONOURS & ACTIVITIES / EXPERTISE

Accreditations / Certifications / Recognitions from:

- NABL (ISO:IEC/17025 :2005)
- UL (Underwriters Laboratory), USA
- ISO – 9001:2008
- Centre for Military Air Worthiness & Certification (CEMILAC)
- Directorate General of Mines Safety (DGMS)
- Dept. of Scientific & Industrial Research
- BIS

Main Activities:

- Process and Product Development
  - Material Selection / Specialization and Development
  - Reverse Engineering / Compound Development
  - Testing and certifications (Tyre & Non-Tyre testing)
  - Rubber Engineering and Finite Element Analysis
  - Quality Audit & GMP services.
  - Training & Consultancy services on Rubber Technology & LMS (Laboratory Management System)
  - Storage and Service life prediction
  - Quality Control / Assurance
  - Process Improvement / Trouble Shooting
  - Cost Reduction
  - Failure Analysis

With the help of state-of-the art facilities created by IRMRA and the expertise developed by its scientists, IRMRA can provide technical and scientific advise to the industries in respect of the following:

Expertise :

- Specification and its interpretation
- Reverse Engineering
- Process Development
- Indigenization & import substitution of rubber products
- Cost reduction
- Life prediction
- Control of rejections / wastage
- Improvement in quality of final products
- TPR

FOR FURTHER DETAILS, PLEASE CONTACT
Dr.P.Thavamani, Director
Indian Rubber Manufacturers Research Association
Plot No.254 / 1B, Road No.16V, Wagle Industrial Estate, Thane (W) – 400 604
Telephone:022-25811348 / 258346502/51/52, Telefax : 022-25823910
E-mail: rubberin@bom7.vsnl.net.in ; Website : www.irmra.org