



MRC Industry Linkage Fund Industry-University Interaction Session 2021

29 June 2021

By Mr. Steven Ng Ching Eng
MRPMA Committee

Our History

Established

1952

**Malaysian
Rubber Goods
Manufacturers'
Association**
(MRGMA)

Renamed

1977

**Malaysian
Rubber Products
Manufacturers'
Association**
(MRPMA)

2022

**70
Years**



A large, abstract blue watercolor splash that starts from the top left and flows towards the bottom right. The splash has various shades of blue, from light to dark, and a textured, painterly appearance. It is positioned on the left side of the slide, partially overlapping the 'Our Mission' text.

Our Mission

- > To facilitate cooperation and protect the interest of rubber products manufacturers
- > To assist and advice the government in creating relevant policies
- > To facilitate the development of a technologically advanced and competitive rubber industrial sector
- > To encourage new and sophisticated manufacturing processes in order to improve quality and productivity
- > To collaborate with other similar associations in achieving a common objective

Our Membership

Representing Dry Rubber & Latex Manufacturing Industry

Ordinary Members

Membership of MRPMA is open primarily to manufacturers of rubber products in the rubber industry. This category will be considered as

Associate Members

The participation of other companies related to the rubber industry are classified as

Our Leadership

(Term 2020 – 2022)



Honorary Life President
YABhg Tun Dr. Arshad Ayub
Karex Berhad



President
Yeaw Kok Kwey
Associated First Rubber



Vice-President
Phang Kwai Keong
Bright Polymer



Vice-President
Loh Yoon Hon
Saiko Rubber



Honorary Secretary
Patsy Kuan Ling Pei
Kossan Rubber Industries



Honorary Treasurer
Steven Ng Yong Beng
Hebe Rubber



Elected Committee
Mabel Lee Mei Hui
Dipro



Elected Committee
Apple Lau Wan Peng
Top Glove



Elected Committee
Stephen Soo Sui Liong
Asian Resinated Felt



Co-opted Committee
Melissa Tan
Getha



Co-opted Committee
Oon Choo Hin
First Win



Co-opted Committee
Steven Ng Ching Eng
Fung Keong Rubber



Co-opted Committee
Dr Fatimah Rubaizah MR
MRB



Co-opted Committee
Dr Shamsul Kamaruddin
MRB
(Alternate)



Observer
Dato' Serajudin Mohd Ismail
MHM Consortium



Observer
Phuah Lee Ping
First Win



Observer
Chin Hon Meng
MALCORP



Observer
Ng Wee Chong
Independent

TYPES OF RUBBER

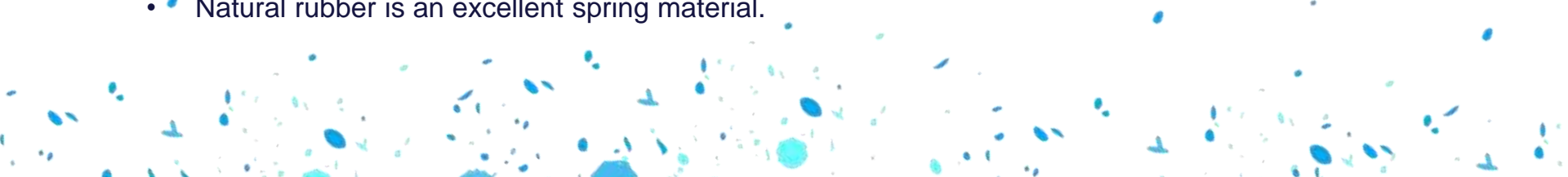


Natural Rubber

Unique Properties of Natural Rubber

- Natural rubber combines high strength (tensile and tear) with outstanding resistance to fatigue.
- Excellent green strength and tack which means that it has the ability to stick to itself and to other materials which makes it easier to fabricate.
- Moderate resistance to environmental damage by heat, light and ozone which is one of its drawback.
- Excellent adhesion to brass-plated steel cord, which is ideal in rubber tyres.
- It has low hysteresis which leads to low heat generation, and this in turn maintains new tyre service integrity and extends retread-ability.
- Low rolling resistance with enhanced fuel economy.
- High resistance to cutting, chipping and tearing.

Uses of Natural rubber

- Natural rubber forms an excellent barrier to water.
 - This is possibly the best barrier against pathogens such as the AIDS virus (HIV). That is the reason why latex is used in in condoms and surgical and medical examination gloves.
 - Natural rubber is an excellent spring material.
- 

Synthetic Rubber

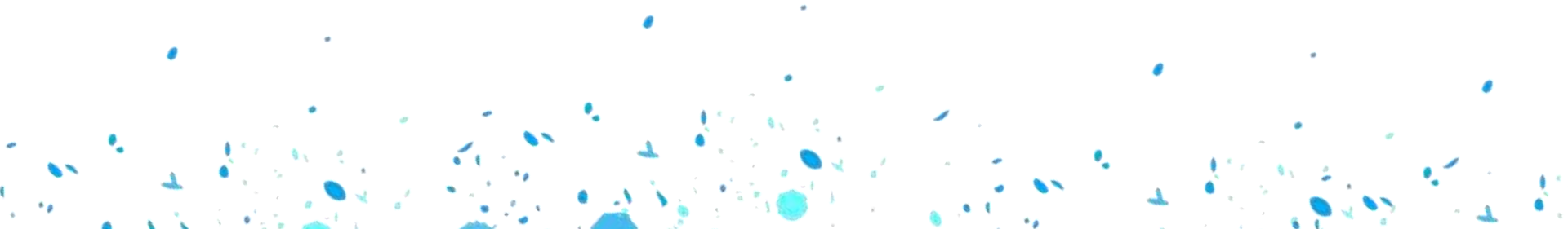
- Synthetic rubbers were produced artificially from petrol chemicals.
- It was first produced during the WWII, then more and more types were produced to enhanced rubber applications where Natural rubber was weak, i.e., oil resistance, ozone, extreme high temperature.



TYPES OF RUBBER PRODUCTS



Latex Products

- Medical devices
 - Medical gloves, condoms, catheters, breathing bags, tubing
 - Household products
 - Household gloves, pacifiers, rubber bands
 - Sporting Goods
 - Toys
 - Exercise bands
- 

Dry Rubber Products

- Automotive products & parts
 - Tyres, mats, seals, bumper, dust cover
- Anti Vibration Mountings
 - Isolate vibrations from work surfaces, reduce noise levels, absorb shock
 - Cylindrical mounts, technical mounts, leveling mounts, anti vibration plates
- Rubber Seals & O-rings
 - Without seal and O-rings, as a mechanical part. There will be no movable vehicles on the road.

Dry Rubber Products

- Extruded Rubber Products
 - applications. They are available in various compounds and styles to meet specific end-use requirements involving various factors like size, tolerance, configuration, cost and performance. Some extruded rubber
 - Rubber cord, rubber hose, rubber stripes and profiles, rubber tubings
- Metal Bonded Components
 - Rubber can be bonded to metal during moulding. This widens the usage of rubber in engineering applications.
 - Anti-vibration mount, bridge bearings, seismic bearings, expansion joints

Dry Rubber Products

- Calendered Rubber Products
 - Rubber Sheets, Rubberized Fabric
 - Elastomers that can be used include: Natural Rubber, Polychloroprene, SBR, Hypalon, Urethane, EPDM, Viton, Fluoroelastomer, Butyl, Nitrile, Silicone
- Rubber Adhesive & Sealants
 - An adhesive is used to bond or fasten materials together and its strength depends on:
 - The strength of attachment of the adhesive to the material surface called adhesion.
 - The internal strength of the adhesive called cohesion.
 - Another function of adhesive is Sealing

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TYPES OF SYNTHETIC RUBBER



Types of Synthetic Rubber

Acrylic Rubber (ACM)

Butyl Rubber (IIR)

Polyethylene(CSM)/ Hypalon

Monomer

Isoprene Rubber (IR)

Perfluoroelastomer(FFKM)

Polysulfide Rubber (PSR)

Styrene Butadiene Rubber

Butadiene Rubber (BR)

Chlorosulfonated

Ethylene Propylene Diene

Fluoroelastomers(FKM)/Viton

Nitrile Rubber (NBR)

Polychloroprene (CR)/Neoprene

Silicone Rubber (SiR)



AREAS OF RESEARCH IMPROVEMENTS

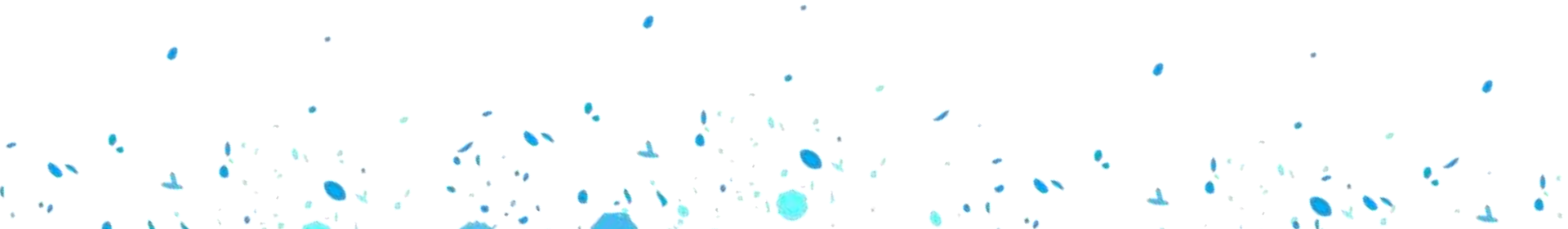
A decorative graphic on the right side of the slide, consisting of a vertical gradient of blue colors (from light cyan to dark blue) with a soft, painterly, and irregular edge, resembling a watercolor splash or a brushstroke.

The MRPMA Proposed Areas

Smart Factory

- IR4.0
- IoT data collection & MES
- Automation

Impact of Electric Vehicles to the rubber automotive parts sector

- Specifications
 - Raw materials
 - OEM
- 

The MRPMA Proposed Areas

Energy Management

- Energy efficiency
- Recover heat energy
- Utilities renewable energy for manufacturing process

Nanotechnology

- Especially in graphene and carbon materials

Use of Thermoplastic Elastomers (TPEs) for Products Substitutions

New Innovate Usage of Natural and Synthetic Rubber & Enhance Rubber Products Range

- Epoxidized Natural Rubber (NR) has not yet been explored
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A large, abstract brushstroke graphic in shades of green and yellow, with a white outline, positioned behind the 'Contact Us' text.

Contact Us

- Collaboration with MRPMA Members
- Event collaborations
- Surveys
- Student Internship, career talk, career advices etc
- And many more

Contact MRPMA Secretariat Office

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