

Butyl Rubber (IIR) Production.

Synthetic Rubber
Manufacturing Industry

Introduction

Butyl rubber (IIR), also called isobutylene-isoprene rubber, a synthetic rubber produced by copolymerizing isobutylene with small amounts of isoprene. Valued for its chemical inertness, impermeability to gases, and weather ability, butyl rubber is employed in the inner linings of automobile tires and in other specialty applications.





Butyl Rubber Applications

Butyl rubber is one of the most commonly used rubber materials used in the manufacturing of a wide range of industrial rubber products. The remarkable properties of butyl rubber like excellent impermeability/air retention and good flex properties, make it a key polymer for a wide range of technical rubber applications. For more information on this type of rubber, check out our section on Butyl Rubber. We present below the use of butyl rubber in various applications:





Automotive Tires

One of the most popular use of butyl rubber is in the making of automotive tires. The first commercial use of butyl rubber was seen in the tire inner tubes. Regular butyl provide excellent inflation pressure retention for truck, bicycle, industrial, agricultural and specialty tires. Butyl rubber is capable to produce more durable tubeless tires with the air retaining inner liner chemically bonded to the body of the tire.

Healthcare

The demands for elastomers are extremely high in the medical and pharmaceutical sectors. Butyl rubber is usually preferred as it ensures protection of sterile pharmaceutical products against external contamination during use and storage.



Butyl rubbers are widely used in pharmaceutical rubber products, like closures, stoppers, caps, seals for infusion containers, injection vials, blood collection tubes and other pharmaceutical bottles. Pharmaceutical stoppers and seals in various shapes and sizes are made using butyl rubber, which provides high cleanliness and gas/moisture barrier in these.

• Industrial Applications

The excellent properties of high damping, resistance to heat aging, resistance to ozone, and barrier properties make them perfect for manufacturing automotive vibration control, hoses and gaskets. Butyl rubbers are also used to improve formulations for conveyor belts, tank linings and condenser packaging.



• Construction

Butyl rubber is also used in the construction industry. Using butyl rubbers, the weather ability of asphalt, contact cement and sealant tapes can be improved.

Adhesives

Use butyl rubbers to provide adhesive properties in tapes, valve cement, and flooring adhesives.

Consumer products

Butyl rubbers are used in ball bladders for sports goods and electrical appliance condenser packing. Excellent air retention properties make butyl rubber a major component in bladders used in the sporting goods industry. Similarly the low permeability and chemical inertness of butyl rubber makes it ideal to make condenser packing for electrical appliances. Butyl rubber is used for making the gum base in chewing gums.



Benefits

- Low permeability to air, gases and moisture
- Vibration damping
- Low glass transition temperature
- Low modulus elastomer
- Low compression set
- Resistance to aging and to weathering from atmospheric exposure
- Wide vulcanization versatility
- Fast cure rates
- Processing safety: no nitrosamines or nitrosamines precursors
- Broad range of durometer and tensile strength properties
- Low filler content for specific gravity, cost-effective compounding



Halogenated Butyl Rubber

Halogenated butyl rubber extend the usefulness of butyl rubber by providing much higher curing rates and enabling co vulcanization with general purpose rubbers such as natural rubber and styrene butadiene rubber (SBR).

Halogenation of butyl rubber with bromine produces rubber which is particularly suitable for the tire industry, wherever low permeability to gases and liquids is required, e.g., tire inner liners, hoses, seals and membranes. It is also suitable for pharmaceutical stoppers and rubber articles needing good resistance to chemicals, weathering, and ozone, such as tank linings, conveyor belts, and protective clothing.



Market Outlook

Butyl rubber is a type of synthetic rubber mostly used in tires and tubes, as it possesses special properties such as permeability to gas, excellent resistance to heat, chemicals & ozone and high lowtemperature flexibility. Other than tires and tubes, butyl rubber is also used in sealants, adhesives, protective clothes, pharmaceutical stoppers, closures, vials & tubes, electrical cables, hoses and shoe soles. The application of butyl rubber has increased lately. Among various areas of application for butyl rubber, tires and tubes is constant in its position as the dominating segment in the global market.

Butyl rubber has emerged as the most suitable product for storing pharmaceutical products.



The inherent properties of butyl rubber makes it an obvious choice for stoppers and seals that are used to provide high cleanliness and gas barriers. Increasing spending on pharmaceutical applications, primarily owing to increasing health consciousness and demand for a high level of cleanliness is expected to provide substantial growth opportunities in the global butyl rubber market.

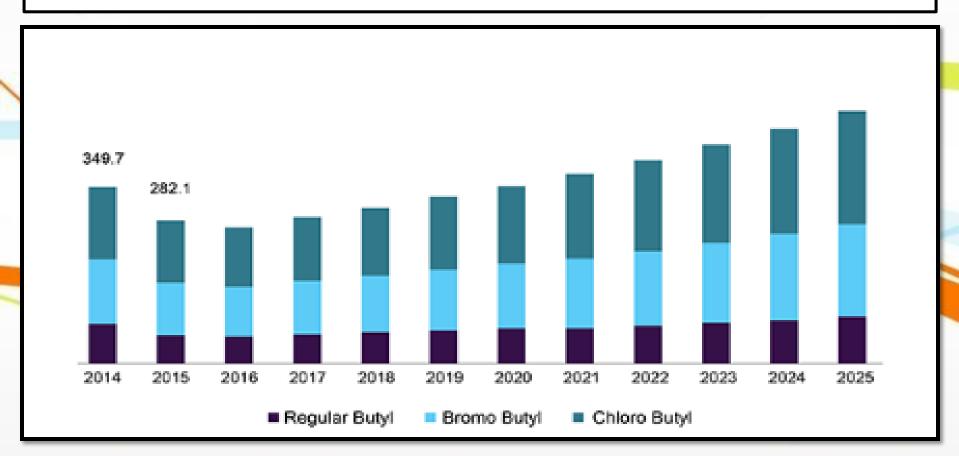
The global butyl rubber market size was valued at USD 2.88 billion in 2016. Superior product properties in comparison to natural rubber, in terms of tear strength, aging, and heat resistance are anticipated to provide a positive scope for market growth over the forecast period.





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U.S. Butyl Rubber Market Revenue, by Product, 2014-2025 (USD Million)





The global butyl rubber market is anticipated to display considerable growth in the near future due to its rising demand for several applications. Typically, butyl rubber contains 98% polyisobutylene and 2% isoprene that are randomly spread in the polymer chain. Due to the exceptional product characteristics of butyl rubber, which includes excellent permeability to moisture and gases and outstanding heat resistance and ageing stability, they are preferred over conventional rubbers.

Butyl rubber is used in several end-user applications such as adhesive and automotive. The enhanced damping property of butyl rubber accounts for its huge demand in the tire industry. Furthermore, the increasing demand for butyl rubber in the manufacture of plastics is expected to propel this market in the coming years.

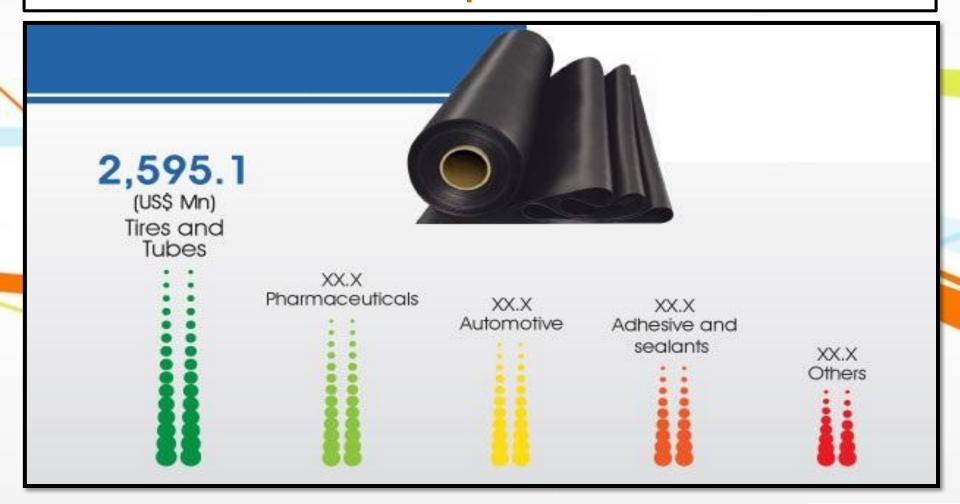


The growing demand for butyl rubber for damp proofing and roof repairing is expected to fuel the growth of this market in the coming years. In addition, the use of food grade butyl rubber in food applications is expected to propel demand.

Butyl rubber is used in the explosives industry for the manufacture of plastic explosives. The increasing demand for butyl rubber as a binding agent in explosives along with the rising demand for explosives from the mining industry will propel its demand over the forecast period. Furthermore, butyl rubber can be added to diesel fuel to withstand fouling of fuel injectors. Last but not the least, increasing environmental considerations for regulating hydrocarbon and particulate matter emissions is expected to fuel market growth.

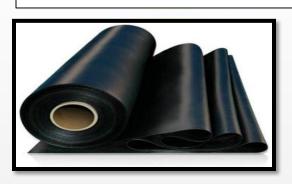


Butyl Rubber Market Value, By Application, 2017 (US\$ Mn)





The global butyl rubber market is majorly segmented on the basis of types, application, end users and region. Based on types butyl rubber the market is segmented into regular butyl rubber, chlorinated butyl rubber, brominated butyl rubber. Based on application of butyl rubber the market is segmented into adhesives, sealant for rubber roof repair, tubeless tire liners, medicine bottles, mechanical goods, and others. Based on end user butyl rubber the market is segmented into automotive industry, pharmaceutical industry, consumer products, rubber industries, construction industries, and others and based on region market is segmented into North America, Europe, APAC, Latin America, Middle East & Africa.





Indian Scenario

There is presently no production of butyl rubber in India. Indian demand for butyl rubber is met entirely by import.

Indian Import

Period (April to March)	In metric tonne
2013-14	49237
2014-15	50634
2015-16	56288
2016-17	57500



Major Queries/Questions Answered in the Report?

- 1. What is Butyl Rubber Manufacturing industry?
- 2. How has the Butyl Rubber Manufacturing industry performed so far and how will it perform in the coming years?
- 3. What is the Project Feasibility of Butyl Rubber Manufacturing Plant?
- 4. What are the requirements of Working Capital for setting up Butyl Rubber Manufacturing plant?



- 5. What is the structure of the Butyl Rubber Manufacturing Business and who are the key/major players?
- 6. What is the total project cost for setting up Butyl Rubber Manufacturing Business?
- 7. What are the operating costs for setting up Butyl Rubber Manufacturing plant?
- 8. What are the machinery and equipment requirements for setting up Butyl Rubber Manufacturing plant?



- 9. Who are the Suppliers and Manufacturers of Plant & Machinery for setting up Butyl Rubber Manufacturing plant?
- 10. What are the requirements of raw material for setting up Butyl Rubber Manufacturing plant?
- 11. Who are the Suppliers and Manufacturers of Raw materials for setting up Butyl Rubber Manufacturing Business?
- 12. What is the Manufacturing Process of Butyl Rubber?



- 13. What is the total size of land required for setting up Butyl Rubber Manufacturing plant?
- 14. What will be the income and expenditures for Butyl Rubber Manufacturing Business?
- 15. What are the Projected Balance Sheets of Butyl Rubber Manufacturing plant?
- 16. What are the requirement of utilities and overheads for setting up Butyl Rubber Manufacturing plant?
- 17. What is the Built up Area Requirement and cost for setting up Butyl Rubber Manufacturing Business?



- 18. What are the Personnel (Manpower) Requirements for setting up Butyl Rubber Manufacturing Business?
- 19. What are Statistics of Import & Export for Butyl Rubber?
- 20. What is the time required to break-even of Butyl Rubber Manufacturing Business?
- 21. What is the Break-Even Analysis of Butyl Rubber Manufacturing plant?
- 22. What are the Project financials of Butyl Rubber Manufacturing Business?



- 23. What are the Profitability Ratios of Butyl Rubber Manufacturing Project?
- 24. What is the Sensitivity Analysis-Price/Volume of Butyl Rubber Manufacturing plant?
- 25. What are the Projected Pay-Back Period and IRR of Butyl Rubber Manufacturing plant?
- 26. What is the Process Flow Sheet Diagram of Butyl Rubber Manufacturing project?



- 27. What are the Market Opportunities for setting up Butyl Rubber Manufacturing plant?
- 28. What is the Market Study and Assessment for setting up Butyl Rubber Manufacturing Business?
- 29. What is the Plant Layout for setting up Butyl Rubber Manufacturing Business?



Table of Contents of the Project Report



Our Detailed Project Report contains

- Introduction
- Properties
- Uses & Applications
- List of Plant & Machineries
- Miscellaneous Items and Accessories
- Instruments, Laboratory Equipments and Accessories
- Electrification, Electric Load and Water
- Maintenance, Suppliers/Manufacturers of Plant and Machineries
- Process of Manufacture
- Flow Sheet Diagram
- List of Raw Materials
- Availability of Raw Materials
- Requirement of Staff & Labour



- Skilled & Unskilled Labour
- Requirement of Land Area
- Built up Area
- Plant Layout.

Along with financial details as under:

- Assumptions for Profitability workings
- Plant Economics
- Production Schedule
- Land & Building
- Factory Land & Building
- Site Development Expenses
- Plant & Machinery
- Indigenous Machineries



- Other Fixed Assets
- Furniture & Fixtures
- Pre-operative and Preliminary Expenses
- Technical Knowhow
- Provision of Contingencies
- Working Capital Requirement Per Month
- Raw Material
- Packing Material
- Lab & ETP Chemical Cost
- Consumable Store
- Overheads Required Per Month And Per Annum
- Utilities & Overheads (Power, Water and Fuel Expenses etc.)



- Royalty and Other Charges
- Selling and Distribution Expenses
- Salary and Wages
- Turnover Per Annum
- Share Capital
- Equity Capital
- Preference Share Capital



Project Financials

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Reasons for Buying our Report:

- This report helps you to identify a profitable project for investing or diversifying into by throwing light to crucial areas like industry size, market potential of the product and reasons for investing in the product
- This report provides vital information on the product like it's characteristics and segmentation
- This report helps you market and place the product correctly by identifying the target customer group of the product



- This report helps you understand the viability of the project by disclosing details like machinery required, project costs and snapshot of other project financials
- The report provides a glimpse of government regulations applicable on the industry
- The report provides forecasts of key parameters which helps to anticipate the industry performance and make sound business decisions



Our Approach:

- Our research reports broadly cover Indian markets, present analysis, outlook and forecast for a period of five years.
- The market forecasts are developed on the basis of secondary research and are cross-validated through interactions with the industry players
- We use reliable sources of information and databases. And information from such sources is processed by us and included in the report



Scope of the Report

The report titled "Market Survey cum Detailed Techno Economic Feasibility Report on Butyl Rubber." provides an insight into Butyl Rubber market in India with focus on uses and applications, Manufacturing Process, Process Flow Sheets, Plant Layout and Project Financials of Butyl Rubber project. The report assesses the market sizing and growth of the Indian Butyl Rubber Industry. While expanding a current business or while venturing into new business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line. And before diversifying/venturing into any product, they wish to study the following aspects of the identified product:



- Good Present/Future Demand
- Export-Import Market Potential
- Raw Material & Manpower Availability
- Project Costs and Payback Period

We at NPCS, through our reliable expertise in the project consultancy and market research field, have demystified the situation by putting forward the emerging business opportunity in the Butyl Rubber sector in India along with its business prospects. Through this report we have identified Butyl Rubber project as a lucrative investment avenue.



Tags

Butyl Rubber Production, Butyl Rubber, Chemical Compound, Production of Butyl Rubber, Process for Production of Butyl Rubber, Butyl Rubber, Synthetic Rubber, Preparation of Butyl Rubber, Butyl Rubber Formula, Butyl Rubber Properties, Butyl Rubber Manufacture, Butyl Rubber Uses, Butyl Rubber Manufacturing Process, Manufacture of Butyl Rubber, Butyl Rubber and Process for Production, Butyl Rubber Plant, Butyl Rubber Properties & Applications, Butyl Rubber (IIR), Synthetic Rubber Industry, Butyl Rubber Manufacturing Plant, Butyl Rubber (IIR) Products for Industrial Use, Butyl Rubber Manufacturing Process, Butyl Rubber Industry, Project Report on Butyl Rubber Production Industry, Detailed Project Report on Butyl Rubber Production, Project Report on Butyl Rubber Production, Pre-Investment Feasibility Study on Butyl Rubber Production, Techno-Economic feasibility study on Butyl Rubber Production, Feasibility report on Butyl Rubber Production, Free Project Profile on Butyl Rubber Production, Project profile on Butyl Rubber Production, Download free project profile on Butyl Rubber Production, Butyl Rubber Manufacturing Business, Halogenated Butyl Rubber, Production of Halogenated Butyl Rubber, Halogenated Butyl Rubber Plant, Halogenated Butyl Rubber Production



Niir Project Consultancy Services (NPCS) can provide Detailed Project Report on Butyl Rubber (IIR) Production. Synthetic Rubber Manufacturing Industry

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NPCS is manned by engineers, planners, specialists, financial experts, economic analysts and design specialists with extensive experience in the related industries.

Our Market Survey cum Detailed Techno Economic Feasibility Report provides an insight of market in India. The report assesses the market sizing and growth of the Industry. While expanding a current business or while venturing into new business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line.



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The detailed project report covers all aspect of business, from analyzing the market, confirming availability of various necessities such as Manufacturing Plant, Detailed Project Report, Profile, Business Plan, Industry Trends, Market Research, Survey, Manufacturing Process, Machinery, Raw Materials, Feasibility Study, Investment Opportunities, Cost and Revenue, Plant Economics, Production Schedule,



Working Capital Requirement, uses and applications, Plant Layout, Project Financials, Process Flow Sheet, Cost of Project, Projected Balance Sheets, Profitability Ratios, Break Even Analysis. The DPR (Detailed Project Report) is formulated by highly accomplished and experienced consultants and the market research and analysis are supported by a panel of experts and digitalized data bank.

We at NPCS, through our reliable expertise in the project consultancy and market research field, have demystified the situation by putting forward the emerging business opportunity in India along with its business prospects......Read more



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- One of the leading reliable names in industrial world for providing the most comprehensive technical consulting services
- We adopt a systematic approach to provide the strong fundamental support needed for the effective delivery of services to our Clients' in India & abroad



We at NPCS want to grow with you by providing solutions scale to suit your new operations and help you reduce risk and give a high return on application investments. We have successfully achieved top-notch quality standards with a high level of customer appreciation resulting in long lasting relation and large amount of referral work through technological breakthrough and innovative concepts. A large number of our Indian, Overseas and NRI Clients have appreciated our expertise for excellence which speaks volumes about our commitment and dedication to every client's success.



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- Technology Books and Directory
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- Laboratory Testing Services
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- We have two decades long experience in project consultancy and market research field
- We empower our customers with the prerequisite know-how to take sound business decisions
- We help catalyze business growth by providing distinctive and profound market analysis
- We serve a wide array of customers, from individual entrepreneurs to Corporations and Foreign Investors
- We use authentic & reliable sources to ensure business precision



Our Approach

Requirement collection

Thorough analysis of the project

Economic feasibility study of the Project

Market potential survey/research

Report Compilation



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