

INDUSTRY & MARKETING PROSPECT OF SYNTHETIC RUBBER IN INDONESIA

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PROFILE OF INDUSTRY

INDUSTRY & MARKETING PROSPECT OF SYNTHETIC RUBBER IN INDONESIA

A | Editors

INTRODUCTION

The development of the tire, paper, carpet, mechanical rubber goods and footwear industry occurred in the last few years have impacted positively on the request of one of the raw materials / additives; synthetic rubber. So it is not surprising that the synthetic rubber industry is now growing in the country.

Of the four synthetic rubber reviewed in this industry profile, styrene butadiene rubber and styrene butadiene latex have been successfully produced in the country. While the other two types namely Isobutene - isoprene (butyl) Rubber (IIR) and Ethylene Propylene - non - conjugated Diene Rubber still rely entirely on imported supplies. Even up to now there has been no investors interested to invest in the field.

In line with the rapid advancement of the national economy, the demand for three types of synthetic rubber in the domestic market will continue to rise. Moreover, synthetic rubber products downstream industry has been able to meet the needs of the domestic market and also has successfully penetrated the export market.

This potential market encouraged BIZTEKA for further review regarding industry prospects and marketing of synthetic rubber in Indonesia. The industry Profile reviewed the development of synthetic rubber supply and demand in local market, the price and the market opportunity for a period of five years.

The report is based on interviews with synthetic rubber producers, distributors and industrial users as primary data. While secondary data obtained from government agencies such as the Ministry of Industry, the Central Bureau of Statistics, the Investment Coordinating Board, the Association of Indonesian Tire and bank data in BIZTEKA - CCI.

PRODUCT DESCRIPTION

Synthetic rubber is an artificial rubber obtained from the reaction of some raw materials of petrochemical products. Synthetic rubber consumption in Indonesia is quite a lot, three of which reviewed in this special report are a styrene butadiene latex (SBL), styrene butadiene rubber (SBR), and Ethylene Propylene - non - conjugated Diene Rubber (EPDM).

Styrene butadiene latex (SBL) is a styrene - butadiene copolymer, or more precisely referred to as a modified solid styrene butadiene rubber (SBR), because the raw materials and the production process is virtually the same, except for the different finishing stages.

SBL - making process is not up to the drying process, while in the SBR drying process is carried out to obtain the solids. Therefore SBL is usually a liquid, while SBR is solid or bales. Fairly fundamental differences of the two types of styrene - butadiene copolymer is the degree of polymerization.

There are four main raw material to producing SBL; styrene, butadiene, water and some chemical additives (emulsifier, catalyst and others). The four main raw material is put into a reactor where polymerization process occurs with controlled temperature and pressure.

When the polymerization reaction is completed, the results of the polymerization is transferred into a unit which mixed impurities can be separated. The final result of this process is the styrene butadiene latex (SBL), which after cooling and filtration, stored into the tank and is ready to be marketed.

Information obtained by BIZTEKA from SBL producers and distributors of chemical stated these chemicals are widely consumed by the paper industry and the carpet industry

DEVELOPMENT OF SUPPLY AND DEMAND

Styrene Butadiene Rubber (SBR)

In Indonesia to date, there is only one company producing SBR, namely PT. Sentra Sintetikajaya which was founded in 1994 with initial capital of Rp. 25 billion. But in 2004 the company was taken over by PT. Gajah Tunggal Tbk., into a synthetic rubber division.

The factory located in the village Cibaga, Mangunreja, Serang, Banten has a production capacity of 75,000 tons of SBR per year. The technology used is derived from Nippon Zeon Co. Ltd., Japan. According to the permit application to the Investment Coordinating Board (BKPM), the total investment in the plant is reaching Rp 342.4 billion.

Table - SBR Producers in Indonesia and its Production Capacity

Name of Company	Location	Production Capacity, (Tons/Year)
PT. Gajah Tunggal Tbk.	Serang, Banten	75,000
Total Production Capacity		75,000

Source : BKPM, Processed by BIZTEKA - CCI

There is one more company that is building a factory PT. Synthetic Rubber Indonesia (SRI) - a joint venture owned by PT. Chandra Asri Petrochemical Tbk through subsidiary, PT. Styrimdo Mono Indonesia with a stake of 45% and the remaining 55% is owned by Compagnie Financiere Du Groupe Michelin (Michelin).

PT.Synthetic Rubber Indonesia has signed an EPC (engineering, procurement, and construction) with Toyo Engineering Corporation and PT. Inti Karya Persada Technics for construction of facilities of synthetic rubber plant in Cilegon, Banten, with a production capacity of 120.000 tons per year consisting of a synthetic butadiene rubber (SBR) and solution styrene butadiene rubber (SSBR), environmentally friendly raw materials for tire production.

The project, with an investment estimated at USD 435 million or Rp. 5.2 trillion was started in the fourth quarter of 2015. Preparation of land for construction of the factory has been completed. Construction of the factory will be completed in 2018 and production start - up will be made in early 2019. The raw materials for the production process are butadiene produced by PT. Petrochemicals Butadiene Indonesia, which is also a subsidiary of PT. Chandra Asri Petrochemical Tbk.

Table - Investment Interest on SBR Industry in Indonesia

Name of Company	Location	Production Capacity, (Tons/Year)
PT.Synthetic Rubber Indonesia	Cilegon, Banten	120,000
Total Production Capacity		120,000

Source : BKPM, Processed by BIZTEKA - CCI

Based on BIZTEKA research, Indonesia SBR production during the year 2011 to 2016 is likely to fluctuate with the rate of decline, ie minus 0.7% per year. After being dropped from 48,000 tons in 2011 to 44,800 tons in 2012, production of SBR Indonesia continued to rise and reached 57,750 tons in 2014. In 2015, production dropped to 43,500 tons. Although SBR has been able to be produced in Indonesia, Indonesia's dependence on imported SBR is still continuing. Even in the last five years the volume of imports is likely to increase at a rate of 6.2% per year, while the value actually tends to decrease at a rate of minus 12.1% per year following the fall in oil prices in the world market.

According to Central Bureau of Statistics, after having increased from 112,902 tons in 2011 to 136,737 tons in 2012 with a value of US\$ 377,091 thousand, imports in the next two years continued to decline and be only 120,602 tons in 2014 with a value of US\$ 252,637 thousand. In 2015, imports increased again to 139,488 tons with a value that has decreased to US\$ 213,311 thousand. While imports in 2016, until last July has reached 81,092 tons worth US\$ 120,058 thousand. It is estimated that imports in 2016 is almost equal to the imports in 2015.

Table – Indonesia's SBR Import Development, 2011 - 2016

Year	Volume, (tons)	Growth, (%)	Value, (US\$'000)	Growth, (%)
2011	112,902	- - -	365,855	- - -
2012	136,737	21.1	377,091	3.1
2013	125,060	- 8.5	287,331	- 23.8
2014	120,602	- 3.6	252,637	- 12.1
2015	139,488	15.7	213,311	- 15.6
2016*)	81,092	- - -	120,058	- - -
Average, %/Year		6.2		- 12.1

*) January – July

Source : BPS, Processed by BIZTEKA - CCI

The three countries in 2015 supplying SBR to the Indonesian market in large quantities are the Republic of Korea, Japan and Taiwan. During the period, the Republic of Korea supplied 49.5% of total imports of Indonesia or 69,094 tons with a value of US\$ 102,077 thousand or 47.9% share of the total import value. Then followed by Japan 26,772 tons (19.2%) worth US\$ 37,733 thousand (17.7%) Taiwan amounted to 10,750 tons (7.7%) with a value of US\$ 17,437 thousand (8.2%).

Other countries are Thailand amounted to 8,494 tons (6.1%) worth US\$ 12,557 thousand (5.9%), China amounted to 6,705 tons (4.8%) worth US\$ 12,370 thousand (5.8%), and Republic of Germany amounted to 5,381 tons (3.9%) worth US\$ 8,516 thousand (4.0%). Supplies from other countries can be seen in the following table.

Table - SBR Imports by Country of Origin, 2015

Name of Origin Countries	2015		Share, %	
	Volume, (Kg)	value, (US\$)	Volume	Value
Korea	69,094,274	102,076,585	49.5	47.9
Japan	26,771,846	37,733,446	19.2	17.7
Taiwan	10,750,288	17,436,922	7.7	8.2
Thailand	8,493,836	12,557,083	6.1	5.9
China	6,704,892	12,370,343	4.8	5.8
Germany	5,381,122	8,515,927	3.9	4.0
France	3,822,335	6,889,665	2.7	3.2
Poland	2,299,215	3,231,911	1.6	1.5
Singapore	1,811,120	4,404,642	1.3	2.1
United States	1,551,669	3,738,687	1.1	1.8
Italy	787,240	1,184,959	0.6	0.6
United Kingdom	535,333	785,746	0.4	0.4
United Arab Emirates	347,760	386,014	0.2	0.2
Brazil	321,633	369,388	0.2	0.2
Viet Nam	152,716	435,661	0.1	0.2
Netherlands	131,234	151,422	0.1	0.1
Hong Kong	94,562	292,001	0.1	0.1
Spain	93,322	155,755	0.1	0.1
India	89,610	119,582	0.1	0.1
Malaysia	78,074	143,211	0.1	0.1
Belgium	71,690	62,540	0.1	0.0
Russia	43,200	120,312	0.0	0.1
Switzerland	40,001	102,001	0.0	0.0
Mexico	20,944	44,611	0.0	0.0

Name of Origin Countries	2015		Share, %	
	Volume, (Kg)	value, (US\$)	Volume	Value
Philippines	422	3,032	0.0	0.0
Total	139,488,338	213,311,446	100.0	100.0

Source : BPS, Processed by BIZTEKA – CCI

Besides to meet the needs of the domestic market, some of SBR production is also exported. But unfortunately, in the last five years, the volume of exports tended to decline at a rate of minus 1.9% per year, while the value is likely to decline, reaching minus 17.5% per year.

In 2011 exports of SBR Indonesia noted at 9,384 tons worth US\$ 29,667 thousand. Exports continued to rise and reached 15,794 tons in 2013 valued at US\$ 34,855 thousand. In 2014 exports declined to 13,350 tons and decreased again to only 6,211 tons in 2015 with a value of US\$ 9,849 thousand. Exports in 2016 are predicted to go up, because until last July exports have reached 3,915 tons with a value of US\$ 5,681 thousand.

Table – Indonesia’s Exports SBR Development, 2011 - 2016

Year	Volume, (Tons)	Growth, (%)	Value, (US\$'000)	Growth, (%)
2011	9,384	- - -	29,667	- - -
2012	10,858	15.7	32,093	8.2

MARKET OPPORTUNITY

By comparing the existing plant capacity and projected consumption during the next five years (2016 - 2020) there will still be a shortage of production capacity of SBR, EDPM and butyl rubber in Indonesia. But there is an excess production capacity of SBL.

This is a new investment opportunity for investors. However, it should be examined deeper especially economical scale matters prior to the establishment of the factory. Details about market opportunities of SBR, SBL, EPDM and butyl rubber in Indonesia throughout 2016 and 2020 can be seen in the following table.

Table - Market Opportunities of SBR, SBL, EPDM and Butyl Rubber In Indonesia, 2016 - 2020

Industry Sectors	Market Opportunity, (tons)				
	2016	2017	2018	2019	2020
Styrene Butadiene Rubber (SBR)					
- Production capacity	75,000	75,000	75,000	195,000	195,000
- Projected consumption	184,853	193,318	202,192	211,495	221,250
- Market opportunity	(109,853)	(118,318)	(127,192)	(16,495)	(26,250)
Styrene Butadiene Latex (SBL)					
- Production capacity	80,000	80,000	80,000	80,000	80,000
- Projected consumption	51,809	55,902	60,339	65,149	70,365
- Market opportunity	28,191	24,098	19,661	14,851	9,635
EPDM					
- Production capacity	-	-	-	-	-
- Projected consumption	10,334	10,545	10,761	10,981	11,206
- Market opportunity	(10,334)	(10,545)	(10,761)	(10,981)	(11,206)
Butyl Rubber					
- Production capacity	-	-	-	-	-
- Projected consumption	11,057	10,701	10,357	10,023	9,701
- Market opportunity	(11,057)	(10,701)	(10,357)	(10,023)	(9,701)

Note = - : Investment Opportunities

+ : Export Opportunities

Source: Projected by BIZTEKA - CCI

CONCLUSION

From the description above it can be concluded that in the years 2011 through 2015, the industry of SBR, SBL, EPDM and butyl rubber in Indonesia:

1. SBR and SBL have been produced in Indonesia, while EPDM and butyl rubber entirely still rely on imported products.
2. Production of SBR and SBL is likely to increase

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