

PETROCHEMICAL PRODUCTS BUSINESS



Developing the S-SBR Business Sector

The Petrochemical Products Business has developed a business model for securing stable earnings regardless of raw materials prices and is a source of stable earnings for the company as a whole. The ability to secure stable earnings is an outcome of significant improvement in the break-even point. We will continue to seek scale expansion and stabilization of earning power in this business. Solution polymerization Styrene-Butadiene Rubber (S-SBR) products for fuel-efficient tires is a core business from which JSR expects further growth as a key product of the Elastomer Business. We aim to capture the top global market share in S-SBR by increasing production capacity and cost competitiveness and maintaining technological superiority in Japan and overseas.

Worldwide demand for S-SBR is increasing by about 8% per annum, despite weak demand for passenger car tires. The start of full-scale manufacturing at JBE in Thailand in 2015 to meet this demand is expected to contribute to future earnings. We plan to expand total annual production of S-SBR at three production bases in Japan, Thailand, and Hungary to over 200,000 tons. The Phase 1 plant in Thailand has production capacity of 50,000 tons, and the Phase 2 plant scheduled to go into operation in 2016 will have capacity for 50,000 tons. If the plant scheduled for construction at JSR MOL Synthetic Rubber Ltd., a joint venture company established in Hungary, starts operation in 2017 as planned, 60,000 tons of capacity will be added. Implementing these plans is expected to result in the world's highest production capacity for S-SBR, a growth product, in fiscal 2018.

Note: Fiscal year means year ended March 31

Elastomers

Performance Overview

Net Sales	¥203.5 billion (+3.9%)	Operating Income	¥17.3 billion (-3.3%)
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- The domestic tire and automobile production markets were weak.
- Sales volumes increased slightly, including S-SBR products.
- Net sales increased due to price revisions in line with increases in prices of raw materials.
- The S-SBR Group company in Thailand began sales activities and recorded net sales.
- Operating income decreased as a result of unfavorable prices, higher fixed costs due to inventory reduction, and cost increases at overseas subsidiaries.

Plastics

Performance Overview

Net Sales	¥57.8 billion (+11.6%)	Operating Income	¥3.9 billion (+32.3%)
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- Although sales of products for automobiles recovered in the second half, lackluster sales of plastics for industrial materials resulted in a year-on-year decrease in sales volumes.
- Sales value increased year on year, partly as a result of the shift to yen depreciation.
- Net sales and operating income increased as a result of product price revisions accompanying fluctuation in raw materials prices, cost reduction efforts, and the impact of the weak yen.

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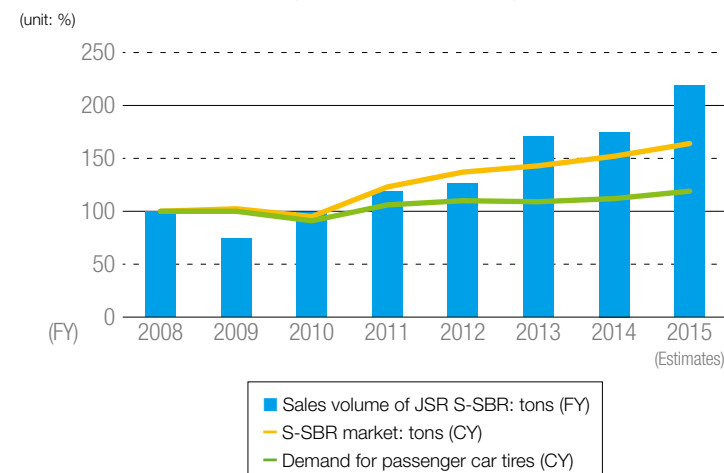
Since future supply shortages of butadiene, a key raw material of S-SBR, are expected to result from factors such as increased use of shale gas, we will develop a structure to secure stable supplies.

Utilization of Performance Chemicals

The Performance Chemicals business has engaged in applications development as a Strategic businesses for the purpose of utilizing elastomer products unique to JSR in product development in the environment and energy conservation fields. Heretofore, this business has utilized technologies cultivated in the development of polymer materials to develop various performance chemicals, such as a high-performance dispersant, high-functional sol-gel materials, particles for industrial use, battery materials, and thermal management materials. Since a certain level of R&D results has been achieved, we will return the Performance Chemicals business to control of the Petrochemical Products Business and focus on sales. In addition, we will engage in the development of original products by applying these technologies in the development of new applications in the Petrochemical Products Business.

Sales Volume of JSR S-SBR

S-SBR market CAGR +8% (Mar. 2011 to Mar. 2014)



(JSR prepared the chart based on statistics of LMC2013, etc.)

How do tires enhance fuel efficiency?

1. Tire distortion is the enemy of fuel efficiency

Energy loss arising from distortion of running tires results in rolling resistance.

2. Reducing energy loss from tire distortion

The key point is to lower the amount of heat generated from friction among rubber molecules and among reinforcing agents, as well as between rubber molecules and reinforcing agents.

3. Secret to synthetic rubber molecules

Simplifying the process of bonding reinforcing agents to synthetic rubber molecule extremities prevents agglutination among reinforcing agents, and the resulting dispersion reduces friction-induced heat generation.

4. JSR's technological strength

JSR's S-SBR excels due to a technology that strengthens the bonding between rubber molecules and reinforcing agents. The result is highly energy-efficient tires that are being widely adopted in the market.