

**WORLDWIDE STYRENE BLOCK COPOLYMERS**  
(Unsaturated, Hydrogenated & High Styrene, Emulsion SBR & Solution SBR)  
**MARKETS, TECHNOLOGIES & TRENDS**

**2010-2015**

**Prospectus For**  
**An In-Depth Strategic Analysis**

**What is the current status of SBS, SIS & SEBS – Commodity? Specialty?**

**Can Every SB Rubber producer take a shot at making SB copolymers?**

**SBC Industry Structure - How has it Changed in the Recent Years?**

**What makes SIS with only one major end use survive successfully?**

**How have converters dealt with SBC Supply situations**

**What Global changes have occurred with SBC demand?**

**Why is SEBS so attractive in polymer modification?**

**What are the Flexible Markets for SB Copolymers?**

**Why is Asia more important for Footwear for SBS?**

**What regions are showing highest growth?**

**Where is the footwear industry heading?**

\* \* \* \*

**What is common between High Styrene and low styrene copolymers**

**What are the end uses for High Styrene Resins? Rigid? Flexible?**

**Who Else produces High Styrene (K-Resin Equivalents)**

**Blending?**

\* \* \* \*

**Who are the producers Solution SBR and Emulsion SBR**

**Which region is the largest producer/consumer of SBR**

**Which markets have the highest growth?**

**How Solution SBR saves fuel consumption**

\* \* \* \*

**Overall Situation and Outlook • Market Impact and Analysis**

**Intermaterial Competition with Other Polymers**

**Competitive Pressures • Environmental Pressures**

**Price/Performance Trade-offs**



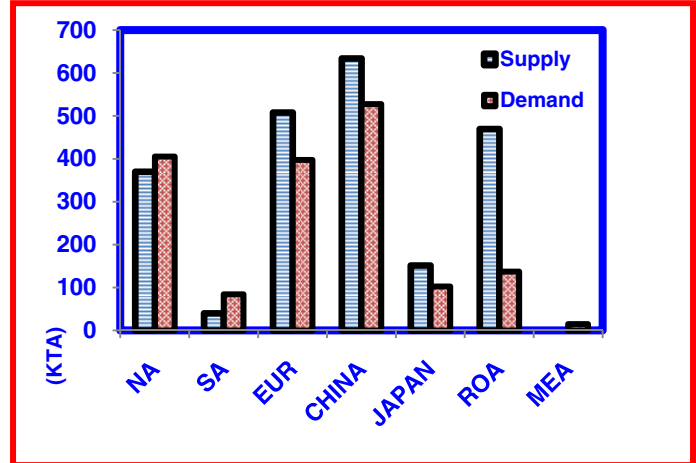
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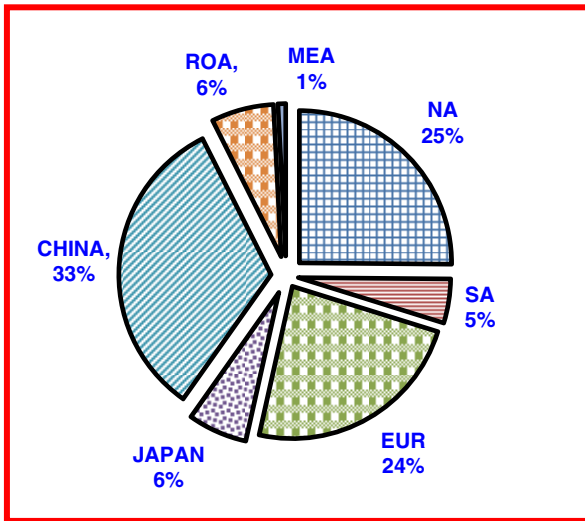


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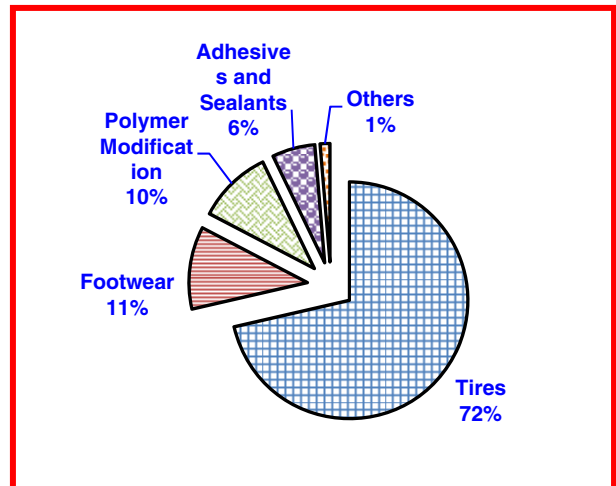
**SB Copolymer Supply-Demand Balance by Region, 2010-2015 (KT)**



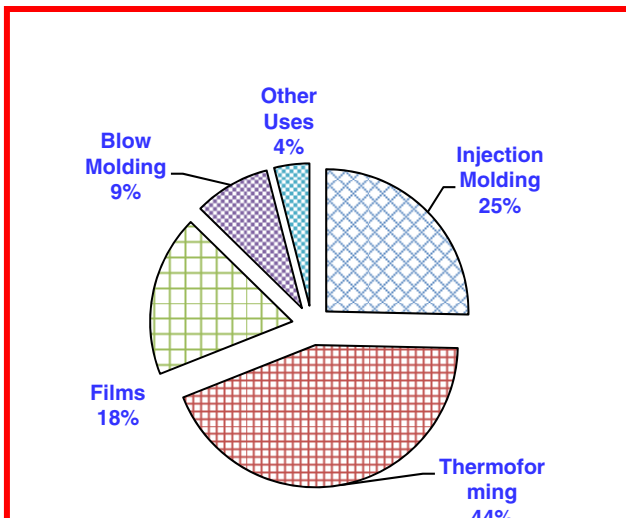
**Global Demand for SB Copolymer by Region, 2010**



**SSBR Demand by Region & Application, Global, 2010**



**Demand for High Styrene SB Copolymer By Application, Global, 2010**



# **WORLDWIDE STYRENE BLOCK COPOLYMERS**

## **(Unsaturated, Hydrogenated & High Styrene, Emulsion SBR & Solution SBR)**

### **Markets, Technologies and Trends**

#### **2010-2015**

#### **INTRODUCTION**

Styrene-Butadiene (SB) copolymers are synthetic polymers which, due to their molecular structure (combination of aromatic-aliphatic combination), have unique and versatile properties. They exhibit excellent elastic, physical, mechanical and processing properties. (They are by far first known as Thermoplastic Elastomers (TPEs) focused on flexible material applications in addition to their unique impact and alloying characteristics.)

SB copolymers have undergone several changes including: (1) commoditization of Unsaturated copolymers, (2) new producers of hydrogenated SB Copolymers, (3) major supply changes with new capacities coming up in Asia (4) developments in polyolefins and elastomers which impacted the elastomeric and polymer modification markets, and (5) the new entrant with SB rubber experience and raw material positioning into the markets. The high styrene SB copolymers industry changes such as ChevronPhillips having to close some plant in North America and new capacities coming up in Asia, more entrants and competition from other styrenic blending materials. Recent interests in the solution SBR for automotive use to save fuel.

The current world demand for SB copolymers is close to 1,600 KT with an average growth of 4.2% per annum. Some of the specialty applications are growing higher than 5% per annum. SB copolymers are of special interest to the polyolefins and other elastomers product participants because of their polymer modification and elastomeric characteristics.

The SB Copolymer industry has seen new entrants, expansion of production portfolio, regional changes in demand, increased capacities and due to raw material scenario-new ways to utilizing existing polymers. An independent analysis of the current status of SB Copolymers and potential alternatives and the opportunities for alternative materials is in order.

#### **A NEW MULTICLIENT STUDY**

Chemical Market Resources, Inc., with our extensive experience in (1) SB technologies (emulsions, rubbers and copolymers), (2) polyolefins, (3) other thermoset rubbers and (4) thermoplastic elastomers, has undertaken a comprehensive global strategic business/technical analysis that reports on this fast-changing intermaterial competition arena. Our in-depth examination and methodology are designed to assist companies in monitoring the rapid developments, analyzing the trends and capitalizing on the many opportunities in these changing markets and technologies.

The report will benefit: (1) present and future SB Copolymers market participants, (2) polyolefin and elastomers producers, compounders and end users, (3) other styrenic industry participants and (4) the individual end users, entrepreneurs, and organizations attempting to understand these complex issues and capture future growth in the marketplace.



## **OBJECTIVES**

*Define the worldwide status of SB Copolymers in terms of: (1) type – Unsaturated, Hydrogenated, High Styrene SBC and SBR, (2) end use markets, (3) current and future trends and (4) regional differences*  
*Assess the global SB Copolymers and Polyolefins/elastomers industry response to recent developments*  
*Assess the global developments in newer innovative materials poised for intermaterial competition against SB copolymers*  
*Assist flexible SB Copolymer producers and converters with an assessment of the current and future intermaterial competition and possible product substitution strategic options*  
*Assist compounders, and suppliers in assessing the impact of these issues in the near future.*

## **KEY ISSUES TO BE ADDRESSED**

*The worldwide SB copolymer market/technology status and concerns of: (1) end users, (2) producers and (3) competing material suppliers in North America, Europe, China, Japan and rest of the world*

*Worldwide resin, compound and additive supplier responses to key issues*

*Suppliers' current and future impact of key issues on SB copolymers vulnerability in selected end use markets with multi-attribute analysis of met/ unmet needs of SB copolymers in over 50 end uses for SB copolymers*

*Status of alternative material developments - polyolefins and elastomers*

## **TIMING & SUBSCRIPTION INFORMATION**

An order form is included as the last page of this prospectus. The report is available for shipping. The price per report will be \$15,000.

## **APPROACH**

The information, data and conclusions of this analysis were developed from sources in North America, Europe, South America, China, Asia and Japan and are based upon, but not limited to, the following methods:

*Interviews with leading SB copolymer, polyolefin, PVC, EP(D)M and TPE suppliers, end users and distributors .*

*Search, review and interpretation of information from government sources, trade and industry groups, public interest groups, government agencies, published articles and product promotional information*

*Information from private experts and CMR proprietary projects (over 20 of them related to these topics in the last two years)*



## ***ABOUT OUR COMPANY ...***

CHEMICAL MARKET RESOURCES, Inc., was founded in 1990 to focus on the areas of marketing research and strategic planning. Our global clientele is concentrated within the chemical, petrochemical, plastics and related industries.

Prior to joining CMR, Inc., our associates held responsible positions in the chemical and allied industries. Our team of professionals has strong technical backgrounds combined with hands-on business experience. Compilation of data, strategic analyses, writing and editing are entirely conducted in our state of the art facilities in-house, to assure quality control at each stage of development. Our strength is in providing our clients close interaction to maximize effectiveness. We provide in-depth analyses with actionable statements in a cost-effective and timely fashion.



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