

HIGH EVA COPOLYMERS 1996-2001
CHEMICAL MARKET RESOURCES, INC.
POLYOLEFINS – MARKETS, TECHNOLOGIES & TRENDS
SERIES

INTRODUCTION

High EVA copolymers possess VA content higher than 10% and less than 40% as a comonomer. High EVAs are often considered an extension of LDPEs with high VA content, which provide impact strength, clarity and blending characteristics that traditional LDPEs can not provide. High EVA copolymers developed into half a billion pound market in 1994 with virtually no competition in the major market sectors of: (1) films, (2) hot melt adhesives, (3) extrusion (4) molding & profile extrusions, (5) wire & cable and others.

In all of these markets, high EVA copolymers commanded a price premium over commodity LDPEs because of their special performance properties such as impact strength, puncture resistance, excellent clarity, heat seal properties, flexibility and others. The price premium also encouraged a fierce intermaterial competition to replace the high EVA copolymers. Acid copolymers and ionomers succeeded in providing properties better than high EVA copolymers, but could not compete on price.

The recent developments in metallocene catalysts have focused on developing the traditional properties of high EVA copolymers including clarity, impact strength, heat seal and blending characteristics without the VA content. With the prices for metallocene based products reaching equilibrium and the apparent cost penalty of high EVA copolymers (related to the VA content), they will present a formidable competition making the high EVAs most vulnerable.

BENCHMARK MARKET STUDY

To assist companies in developing an in-depth analysis of the current market status and monitor the rapid developments in high EVAs, their vulnerability to the new generation polyolefins, and the related opportunities, Chemical Market Resources, Inc. (CMR), with our extensive experience in high EVA markets, technologies and cost analysis, presents a comprehensive business/technical strategic analysis that reports on the industry status, manufacturing costs and profitabilities. The report discusses in detail the opportunities and the strategies for developing and/or penetrating these markets.

THE MAJOR OBJECTIVES

Assist new generation polyolefin producers in assessing their specialty products as replacement candidates

Assist the current high EVA producers in assessing the strategies for protecting the markets and developing new opportunities

Assist end users and processors in selecting the proper formulations and assessing the manufacturing costs and intermaterial competition



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KEY ISSUES ADDRESSED

Outline of the North American, European and Japanese high EVA copolymers market trends and forecasts
Unmet needs translatable into opportunities
Developments in metallocene LDPE/LLDPE grades positioned to compete against High EVAs
Analysis of the major high EVA copolymers and new generation polyolefin suppliers and their strategies in these markets/applications
Market and technology positioning of major high EVA copolymer producers
End use profitability and manufacturing costs
Detailed manufacturing cost analysis for High EVA copolymer manufacturing cost analysis.

APPROACH

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

Search, review and interpretation of information from government sources, trade and industry groups, published articles and product promotional information
A thorough search of relevant patent technology and process details with producers and converters/fabricators
Information from private experts and CMR proprietary projects related to EVA copolymers and new generation polyolefins
Interviews with leading LDPE, acid copolymers, ionomers, metallocene catalyzed PE suppliers, end users and distributors
Interviews with all of the major producers of high EVA copolymers and end users to understand industry trends and future plans
Other multiclient studies completed by Chemical Market Resources, Inc.
The manufacturing cost economics based on our extensive cost databases and interviews. The intermaterial competition was analyzed based on "indifference analysis", a technique used by Chemical Market Resources, Inc. and well accepted by our major clients.
Interviews with government agencies

PROJECT MANAGEMENT

Dr. BALAJI B. SINGH, president of Chemical Market Resources, Inc. obtained his Ph.D. in Chemical Engineering from Texas A&M University and an M.B.A. in Marketing Research and Strategic Planning from the Ohio State University. He has several years of experience in the oil/chemical industry in process research, process economics and marketing research. His key area of expertise is in opportunity evaluation and competitive assessment for technology value-added, specialty products in petrochemicals and functional chemicals. Balaji successfully completed 300 proprietary studies in various end use industry sectors for clients worldwide. He was responsible for the overall strategic analysis of the report.

TIMING, SUBSCRIPTION & ORDERING INFORMATION

This study was completed June 1997. The price of the study is US \$5,500 for two copies of the report. Additional copies are available for \$200 each. To subscribe, simply sign the attached order form and mail/fax it to us. The study can also be ordered as a part of the Chemical Market Resources, Inc. Polyolefins MT&T series.



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HIGH EVA COPOLYMERS
North America, Europe and Japan
Markets, Technologies & Trends 1996-2001
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ABOUT OUR COMPANY...

CHEMICAL MARKET RESOURCES, Inc. was founded in 1990 to focus in 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 chemical 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 the effectiveness. We provide in-depth analysis with actionable statements in a cost-effective and timely fashion.

We are committed to Polyolefins!

Multiclient Studies

New Generation Polyolefins vs. SB Copolymers – North America, Europe and Japan
1995-2000 – Markets, Technologies & Trends – Completed January 1995
Intermaterial Competition of fPVC, Flexible Range TPEs and EP(D)M vs. Polyolefins
North America, Europe & Japan 1995-2005 – Completed January 1996
Polyolefins MT&T (Markets, Technologies & Trends) Series – See prospectus

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New Generations Polyolefins – Bimonthly Global Review of Technologies & Trends On-going service, published six times a year – Call for a complimentary copy!

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