

GLOBAL SPECIALTY POLYOLEFINS- MARKETS, TECHNOLOGIES & TRENDS 2008-2013

Prospectus For An In-Depth Strategic Analysis Completed - January 2009

How do you define Specialty Polyolefins – Value?? Barriers?, Margins, Technology?

What happened to the Specialty Polyolefin Programs from the late 80s????

Why is every region in the World focusing on Specialty Polyolefins??

The reasons are different- But the Goal is the Same

**Why were Metallocenes never qualified as Specialties,
Yet, successfully derailed all on-going Specialty Polyolefin Developments?**



What is the Impact of Global Market Migration on Specialty Polyolefins?

What happens if someone builds a worldscale plant for specialty (will it work? Where would you build it? transform it into commodity?)

Why does Middle East - Want/Need Specialties???



What are the 50 Specialty Polyolefins? What function do they provide?

What is the history of their development? Applications? What Markets will they serve?

Why did some of them discontinue?? What really happened to Hivalloys???

**COCs
PDCPD???**

Valtec???

**Flexomer?? TPX,
Lofty Goals of Monsanto TPVs ESIs,,,,,**



What are the critical markets for Specialty Polyolefins – PS replacement? PVC

replacement? ETP Replacements? Green Technologies? Cost Reduction?

**What is the role of compounders and converters in Specialty Polyolefins –
Should they lead the movement or Join with the Resin Companies?**



Chemical Market Resources, Inc.

560 Blossom Street, Ste C, Webster, TX 77598

Tel:281-557-3320;Fax:281-557-3310; Web:www.CMRHouTex.Com

GLOBAL SPECIALTY POLYOLEFINS- MARKETS, TECHNOLOGIES & TRENDS 2008-2013

INTRODUCTION

Polyolefins can be classified into (1) commodities, (2) differentiated commodities and (3) specialties. Recognizing product/process capabilities early on is essential for the successful positioning of developmental products and value creation. Without a doubt, technology plays the key role in polyolefin-based specialties.

The Polyolefins Market

Polyolefins represent roughly 60 percent of all the thermoplastics produced and sold in the world. The major types of polyolefins include polypropylene, high-density polyethylene, linear low-density polyethylene, low-density polyethylene, metallocene polyethylene and polypropylene, and various co-polymers and elastomers. The polyolefin family of products serves a wide variety of end-use markets in the major sectors of packaging, automotive, construction, medical, wire and cable and others. By nature, an industry of this size is considered a commodity producer.

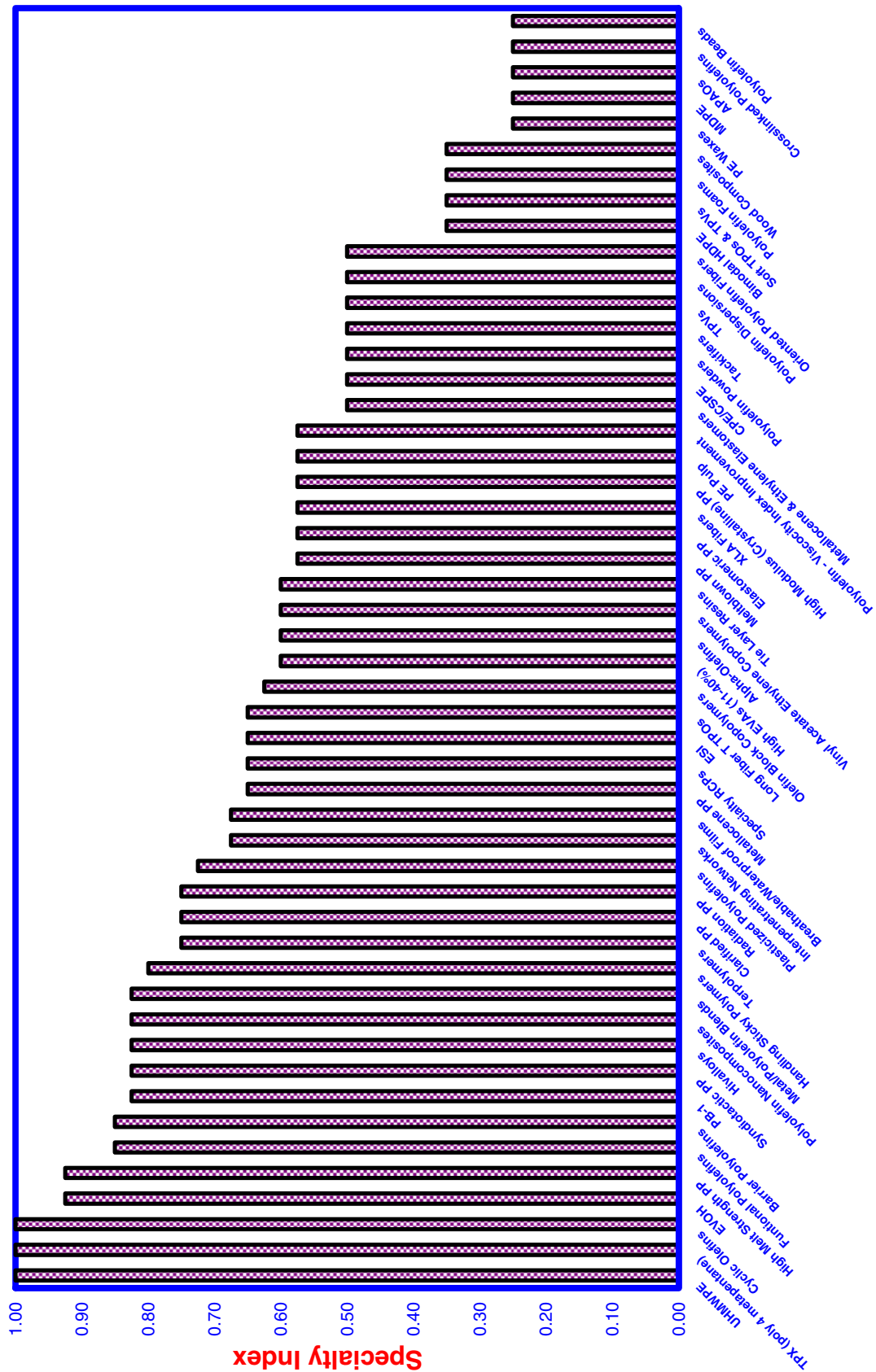
However, almost all of the major polyolefin producers consider polyolefins as a specialty product with plenty of opportunities for value addition and creation through technological innovations. A comparative review of polyolefins versus the next largest polymer, polyvinyl chloride, bears that out. Unlike the incremental technological developments more common in other polymers, polyolefin technology developments are significant and routinely leapfrog the existing ones. These tremendous developments in technology impact the whole industry as a unit as well as the high profit sectors, often causing confusion regarding expected impact on profitability and classification of specialty versus commodity. As a case in point, metallocenes introduced in the early 1990s were initially positioned in the market as specialties with high expectations for profitability, but are settling down as "differentiated commodities."

Historically, chemical and petrochemicals materials have been classified into commodities versus specialties based on size, number of players and profitability as the criteria. This classification gained popularity during the 1980s, when most organizations made a special effort to move from commodities to specialties. Such a system was never used in the area of polyolefins.

To differentiate, we selected most of the polyolefin products and determined their "Specialty Index." We have defined the specialty index as a combination of the following major attributes and associated weights: profitability (40 percent weight), demand (20 percent), number of players (15 percent), price (15 percent) and technical barriers (10 percent).



Polyolefins Specialty Index



A NEW MULTICLIENT STUDY

Chemical Market Resources, Inc., with our extensive experience in (1) specialty polyolefins, (2) specialty products, and (3) polyolefins, is undertaking 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 flexible polyolefins participants, (2) polyolefin and elastomers producers, compounders and end users, (3) other polyolefin 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 polyolefins in terms of commodities, differentiated commodities, and specialties.*
- ✿ *Status of different regions in terms of specialty market participation*
- ✿ *Products that are transitioning from specialty to differentiated commodity*
- ✿ *Participation strategy by Region*
- ✿ *Participation strategy for existing players and new entrants*
- ✿ *Role of compounders, converters, and end-users in specialty polyolefins market*
- ✿ *Requirements to succeed as a specialty products supplier*

KEY ISSUES TO BE ADDRESSED

- ✿ *The worldwide markets for over 50 different specialty products segmented by: (1) North America, (2) Western Europe, (3) Japan, and (4) Rest of World*
- ✿ *Status of technology, patents, and market participation options for specialties*
- ✿ *Impact of business migration on specialty polyolefins*
- ✿ *Impact of increasing oil prices on specialty products margins*

TIMING & SUBSCRIPTION INFORMATION

An order form is included as the last page of this prospectus. The report is completed and ready to be issued. Please refer to the Order Form attached to this document.

APPROACH

The information, data and conclusions of this analysis will be developed from sources in North America, Western Europe, Japan, China, Latin America, and other key regions/countries and are based upon, but not limited to, the following methods:

- ✿ *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 100 of them related to these topics)*
- ✿ *Interviews with leading suppliers, end users and distributors of specialty products*
- ✿ *Technology providers for specialty polyolefins*
- ✿ *The systematic approach to market quantification, assessment and opportunity analysis by end use and region*



GLOBAL SPECIALTY POLYOLEFINS

TOPICS COVERED

Executive Summary

Classification

Ethylene-based SPO		Propylene-based SPO	
Chapter	Title	Chapter	Title
E-1	Acid copolymer and Ionomer	P-1	Alpha Olefins C3 to C8
E-2	Barrier Resins	P-2	APP-APAO
E-3	Bimodal HDPE	P-3	Beads PO
E-4	COC	P-4	Clarified PP
E-5	CPE/CSPE	P-5	HCPP
E-6	EVOH	P-6	HMS PP
E-7	Foam PO	P-7	Melt blown PP
E-8	High EVA	P-8	Metallocene PP
E-9	MDPE	P-9	Nanocomposites
E-10	Metallocene Elastomers	P-10	Polybutene-1
E-11	Metallocene Plastomers	P-11	Radiation Resistant PP
E-12	Powder PO	P-12	Random Copolymer and Terpolymer
E-13	Pulp PE and PP	P-13	Soft TPOs
E-14	Tie layer resins	P-14	Syndiotactic PP
E-15	Tyvek PE	P-15	Tackifiers PP
E-16	UHMWPE	P-16	TPX
E-17	VI Improvers	P-17	TPV
E-18	Waxes PE	P-18	Breathable PO Film
E-19	Wood Composite	P-19	EHPP
E-20	XLPE	P-20	Hivalloy
E-21	Dispersions PO	P-21	PO Plasticizers
E-22	ESI	P-22	Reactor Granule Technology
E-23	Functionalized Polyolefins		
E-24	Green Polyolefins		
E-25	IPN		
E-26	Metal/PO Blends		
E-27	Olefin Block Copolymer		
E-28	XLA fibers		

Strategic Analysis



SAMPLE TABLE OF CONTENTS**

CHAPTER E-8: HIGH ETHYL VINYL ACETATE (HIGH EVAs)

Introduction	E8-1
Properties of EVA Copolymers.....	E8-1
Manufacturing Technology	E8-4
Process Description	E8-4
Global Demand for High EVA.....	E8-4
By Region	E8-4
By Application	E8-4
By Type.....	E8-4
Growth Driver Tree Analysis.....	E8-11
Regional Demand for High EVA.....	E8-13
North America	E8-13
Europe	E8-13
Japan	E8-15
China.....	E8-15
Rest of World	E8-17
Global Supply for High EVAs.....	E8-17
Regional Differences and Business Migration.....	E8-23
Pricing for High EVAs.....	E8-24
Industry Structure	E8-24

**** All Topics / Chapters covered in the study follow the same organization and include sections as above.**



SAMPLE LIST OF EXHIBITS**

CHAPTER E-8: HIGH ETHYL VINYL ACETATE (HIGH EVAs)

Exhibit E8-1: Manufacturing Process: EVA Copolymers	E8-4
Exhibit E8-2: Global Demand, High EVA, By Region, 2008	E8-6
Exhibit E8-3: Global Demand and Forecast by Region, High EVA.....	E8-7
Exhibit E8-4: Global Demand, High EVA, By Application, 2008	E8-8
Exhibit E8-5: Global Demand and Forecast by Application, High EVA.	E8-9
Exhibit E8-6: Global Demand, High EVA, By Type, 2008.....	E8-12
Exhibit E8-7: Growth Driver Tree for High EVA, Global, 2008.....	E8-13
Exhibit E8-8: Demand and Forecast, High EVA, North America.....	E8-15
Exhibit E8-9: Demand and Forecast, High EVA, Western Europe.....	E8-16
Exhibit E8-10: Demand and Forecast, High EVA, Japan.....	E8-18
Exhibit E8-11: Demand and Forecast, High EVA, China	E8-19
Exhibit E8-12: Demand and Forecast, High EVA, Rest of World.....	E8-20
Exhibit E8-13: Global EVA Capacity by Region, 2008.....	E8-21
Exhibit E8-14: Global EVA Producers, by Region, 2008	E8-22
Exhibit E8-15: High EVA Pricing.....	E8-25
Exhibit E8-16: Industry Structure: EVA Copolymers.....	E8-26

**** All Topics / Chapters covered in the study follow the same organization and include corresponding Exhibits as above.**



GLOBAL SPECIALTY POLYOLEFINS - MARKETS, TECHNOLOGIES & TRENDS 2008-2013

ORDER FORM

Mail order form/payment to:
Chemical Market Resources, Inc.
560 Blossom Street, Suite C
Houston, TX 77598-4237

Email: CMRInfo@CMRHouTex.Com

Telephone Inquiries: 281-557-3320

Fax Inquiries: 281-557-3310

Wiring Instructions:

FROST Bank

218 W. NASA Pkwy, Webster TX 77598

ABA No. 114000093

Acct No. 320078581

Swift Code: FRSTUS44A

The report includes over **1,100 pages** of detailed coverage and analysis of specialty polyolefins and is **available for immediate delivery**. The price of the report is **USD 27,500**** (Includes one paper copy). A CD version of the report is available for an additional USD 2,500. Additional paper copies of the study are available for USD 500 per copy. For further information/details please contact Chemical Market Resources, Inc.

**** Prices are subject to change without notice – 01/20/2009**

Subscribers agree to treat the contents of this report as confidential, not to be revealed to any person outside the subscriber organization, and to certify the report will be used solely by the officers and employees of the subscriber or majority owned subsidiaries (>51%).

.....

Authorized Signature	Date	
.....	
Company Name	Name/Designation	
.....	
Street Address		
.....		
City	State	Zip
.....
Telephone/Fax Numbers		
.....		

If you are ordering extra copies, please include the addresses where the copies are to be mailed (on an additional piece of paper), if different from your own.



Chemical Market Resources, Inc.
Tel: (281) 557-3320 Fax: (281) 557 - 3310