

# Metallocene Technologies and Global Markets

<https://marketpublishers.com/r/M58B76B8BF4EN.html>

Date: May 2020

Pages: 155

Price: US\$ 2,750.00 (Single User License)

ID: M58B76B8BF4EN

## Abstracts

### REPORT SCOPE:

This report covers global markets for the metallocene-catalyzed versions of the following resins/elastomers: LLDPE, HDPE, VLDPE, polypropylene, and EPDM, along with the more recently introduced variants known as polyolefin plastomers (POPs) and polyolefin elastomers (POEs). Important competitive non-metallocene-based resins also are explored.

Major global producers are covered in terms of key trade-named products. Applications of metallocene resins/elastomers will be covered, including films used in nonfood packaging, non-packaging films, consumer/industrial packaging, flexible food packaging, rigid food packaging, shrink/stretch films, wire/cable, hose/tubing, polymer modification, medical products and automotive products.

Metallocene resin/elastomer producers, including specific trade named products, will be covered along with up-to-date information on joint ventures, licensing arrangements, new technologies, and patents.

Note: The volumes forecast in this report consider the economic impact of the COVID-19 virus.

### REPORT INCLUDES:

30 data tables and 13 additional tables

A brief overview and contemporary analysis of the global market for metallocene technologies

Analyses of global market trends, with data corresponding to market size for 2019, estimates for 2020 and projections of compound annual growth rates (CAGRs) through 2025

Discussion of underlying factors driving the industry growth, economic trends, demographic shifts, technological advancements, and regulatory aspects that shape and influence the future marketplace

Characterization and quantification of metallocene catalyzed resins and elastomers, and breakdown of the global market data (in value and volumetric terms) by type, application, end use industry and geographical region

Identification of the technical as well as other non-technical challenges that must be prevailed over for the market to realize its full potential

Market share analysis of major stakeholders operating within the industry and their key competitive landscape

Comprehensive company profiles of leading global corporations, including Borealis AG, Chevron Phillips Chemical Co., LLC, Dow Chemical, Japan Polychem Corp., LG Chemical Ltd., LyondellBasell Industries and Mitsui Chemicals

## Contents

### **CHAPTER 1 INTRODUCTION**

Study Goals and Objectives  
Reasons for Doing This Study  
Scope of Report  
Sources  
Methodology  
Geographic Breakdown  
Analyst's Credentials  
BCC Custom Research  
Related BCC Research Reports

### **CHAPTER 2 SUMMARY AND HIGHLIGHTS**

### **CHAPTER 3 MARKET AND TECHNOLOGY BACKGROUND**

Background  
Description  
Technology  
Critical Parameters  
Bimodal Process  
Role of Metallocenes  
Importance of Molecular Weight Distribution  
Techniques to Control Polyethylene Molecules  
Metallocene Polyethylene Review  
Evolution of Metallocene Catalysts  
Comparison of Ziegler-Natta and Metallocene Catalysts  
Market Drivers  
Growing Application of Metallocene in the Packaging Industry  
Increasing Demand for LLDPE in Films Segment  
Rising Demand from Developing Countries  
Rising Demand from the Automotive Industry  
Market Restraints  
Fluctuation in Raw Material Prices  
Metallocene Substitutes: Other Economical Catalyst and Polymerization Methods  
Geographic Summary of the Metallocene Market  
Impact of Coronavirus on the Global Economy

North America  
Europe  
Asia-Pacific  
Competitive Landscape and Market Share  
Market Summary

## **CHAPTER 4 MARKET BREAKDOWN BY TYPE OF METALLOCENE**

Polyethylenes

Overview

General Properties

High Density Polyethylene (HDPE)

Low Density Polyethylene (LDPE)

Linear Low-Density Polyethylene (LLDPE)

Medium-Density Polyethylene (MDPE)

Ultra-High Molecular Weight Polyethylene (UHMWPE)

Ultra-Low-Density Polyethylene (ULDPE) and Very-Low-Density Polyethylene (VLDPE)

Market Estimates and Forecasts

Polypropylene

Overview

Applications

Properties

Upgraded Polypropylene

Advances in Polypropylene Technologies

Highly Crystalline Grades

Reinforced Polypropylenes

Random Copolymer Polypropylenes

Polypropylene Films

Polypropylene Process Technologies

Metallocene Polypropylenes

Polypropylene Producers

Market Estimates and Forecasts

Polyolefin Plastomers (POPs)

Background

Characteristics of Polyolefin Elastomers

ExxonMobil Chemical

Dow Chemical

Metallocene Plastomer Modification of Polypropylenes

Some Possible Confusion in Definitions

Market Estimates and Forecasts  
Polyolefin Elastomers (POEs)  
Background  
Technology  
Recent Developments in the Elastomer Industry  
Characteristics of Polyolefin Elastomers  
Applications of Polyolefin Elastomers  
ExxonMobil Vistamaxx  
Elastomer Definitions  
Market Estimates and Forecasts  
Ethylene-Propylene Rubbers (EPR and EPDM)  
Background  
Technology  
Applications  
Trade-Named Products  
Metallocene EPDMs  
Market Estimates and Forecasts  
Thermoplastic Polyolefins (TPOs)  
Overview  
Description  
Use of Polyolefin Elastomers in TPOs  
Foams  
Background  
Metallocene-Based Foams  
Market Estimates for Metallocene Resins/Elastomers

## **CHAPTER 5 MARKET BREAKDOWN BY APPLICATION**

Overview  
Nonfood Packaging Bags and Sacks  
Background  
Materials Options for Waste Bags and Sacks  
Resins Used in Plastic Can Liners  
Consumer Trash Bags  
Are Metallocene-Based Liners Better?  
Gauge of Consumer Trash Bags is a Less Important Decision Parameter  
Heavy-Duty Sacks  
Summary and Trends of Resin Choices in Nonfood Flexible Packaging  
Market Estimates and Forecasts

Shrink and Stretch Wrap Films  
Background  
Stretch Wrap  
Shrink Film  
Market Estimates and Forecasts  
Flexible Food Packaging Films  
Overview  
Barrier Technology  
Food Packaging Film Technologies  
Packaging Formats  
Specific Food Packaging Applications  
Market Estimates and Forecasts  
Consumer/Industrial Products Packaging  
Overview  
Healthcare Packaging  
Envelopes and Overwrap  
Market Estimates and Forecasts  
Medical  
Medical Bags  
Market Estimates and Forecasts  
Non-packaging Films  
Agricultural Films  
Diaper Products  
Construction Films  
Other Applications  
Market Estimates and Forecasts  
Automotive  
Metallocene Resin/Elastomer Usage  
Market Estimates and Forecasts  
Wire and Cable  
Materials  
Metallocenes for Wires and Cables  
Market Estimates and Forecasts  
Polymer Additives (Impact Modifiers)  
Types of Impact Modifiers  
Market Estimates and Forecasts  
Hose and Tubing  
Polyethylenes  
Ethylene Vinyl Acetate (EVA)

EPDM

Thermoplastic Vulcanites (TPVs)

PVC

Examples of Hoses/Tubing Made from Metallocene Elastomers

Market Estimates and Forecasts

Rigid Food Packaging

Metallocene Resin Developments

Market Estimates and Forecasts

Nonwoven Fibers

Nonwoven

Absorbent Products

Metallocenes Used for Nonwovens

Metallocene-Based Hot-Melt adhesives

## **CHAPTER 6 PATENT REVIEW/NEW DEVELOPMENTS**

Overview

Selected Patents

## **CHAPTER 7 COMPANY PROFILES**

BOREALIS AG

BRASKEM

CHEVRON PHILLIPS CHEMICAL CO. LLC

DAELIM CORP.

DOW CHEMICAL

EXXONMOBIL CHEMICAL CO.

INEOS OLEFINS AND POLYMERS

JAPAN POLYCHEM CORP.

LG CHEMICAL LTD.

LUMMUS NOVALEN TECHNOLOGY GMBH

LYONDELLBASELL INDUSTRIES

mitsui chemicals

TOTAL PETROCHEMICALS

UNIVATION TECHNOLOGIES LLC

WR GRACE & CO-CONN

## **CHAPTER 8 PRICING**

**CHAPTER 9 PLANT CAPACITIES****CHAPTER 10 APPENDIX A: FILM/SHEET MATERIALS**

Background  
Properties  
Flexible Plastic Film Fabrication Technology  
Overview  
Film Extrusion  
Other Primary Film Processing Methods  
The Process of Film Conversion  
Polymer and Film Orientation  
Multilayer Lamination and Coextrusion  
Film Thickness Units

**CHAPTER 11 APPENDIX B: JOINT VENTURE AND LICENSING ACTIVITIES**

Overview  
History of Selected Metallocene Resin/Elastomer Joint Ventures  
History of Selected Metallocene Resin/Elastomer Licensing Arrangements  
Licensing Activities of Major Metallocene Resin/Elastomer Producers  
Selected Licensing Agreements for Metallocene Resin/Elastomer Catalyst Technology and Processing

**CHAPTER 12 APPENDIX C: SELECTED METALLOCENE RESIN/ ELASTOMER PRODUCT TRADE NAMES****CHAPTER 13 APPENDIX D: ACRONYMS**



## List Of Tables

### LIST OF TABLES

Summary Table: Global Market Volumes of Metallocene-Catalyzed Resins and Elastomers, by Major Application, Through 2025

Table 1: Timeline of the Evolution of Polyolefin Catalysts, 1930s-2010s

Table 2: Competitive Landscape of the Metallocene Market

Table 3: Global Market Volumes of Metallocene-Catalyzed Resins and Elastomers, by Application, Through 2025

Table 4: Leading Global HDPE Producers

Table 5: The LLDPE Groups

Table 6: Characteristics and Primary Uses of LLDPE, HDPE and LDPE

Table 7: Global Market Volumes of Metallocene LLDPE, by Application, Through 2025

Table 8: Global Market Volumes of Metallocene LLDPE for Flexible Nonfood Packaging, by Application, Through 2025

Table 9: Global Market Volumes of Metallocene LLDPE for Consumer/Industrial Packaging, by Application, Through 2025

Table 10: Global Market Volumes of Metallocene LLDPE for Non-packaging Film, by Application, Through 2025

Table 11: Global Market Volumes of Metallocene HDPE, by Application, Through 2025

Table 12: Global Market Volumes of Metallocene VLDPE, by Application, Through 2025

Table 13: Further Examples of Metallocene Polypropylene Applications

Table 14: Leading Global Polypropylene Producers

Table 15: Global Market Volumes of Metallocene Polypropylene, by Application, Through 2025

Table 16: Global Market Volumes of Metallocene Polypropylene for Consumer Industrial Packaging, by Application, Through 2025

Table 17: Global Market Volumes of Metallocene Polyolefin Plastomers, by Application, Through 2025

Table 18: Global Market Volumes of Metallocene-Based Polyolefin Plastomers for Consumer/Industrial Packaging, by Application, Through 2025

Table 19: Polyolefin Plastomer and Polyolefin Elastomer Definitions as a Function of Density

Table 20: Global Market Volumes of Metallocene Polyolefin Elastomers, by Application, Through 2025

Table 21: Global Market Volumes of Metallocene EPDM, by Application, Through 2025

Table 22: Global Market Volumes of Metallocene Resins/Elastomers, by Type of Metallocene, Through 2025

Table 23: Global Market Volumes of Metallocene LLDPE for Flexible Nonfood Packaging Films, by Application, Through 2025\*

Table 24: Global Market Volumes of Metallocene Resins/Elastomers in Shrink/Stretch Wrap Film Applications, by Type of Resin, Through 2025

Table 25: Global Market Volumes of Metallocene Resins/Elastomers in Flexible Food Packaging Applications, by Type of Metallocene, Through 2025

Table 26: Global Market Volumes of Metallocene Resins/Elastomers in Consumer/Industrial Packaging Applications, by Type of Metallocene, Through 2025

Table 27: Global Market Volumes of Metallocene Resins/Elastomers for Healthcare Packaging, by Type of Metallocene, Through 2025

Table 28: Global Market Volumes of Metallocene Resins/Elastomers for Envelope/Overwrap, by Type of Resin, Through 2025

Table 29: Global Market Volumes of Metallocene Resins/Elastomers in Medical Device Applications, by Type of Resin, Through 2025

Table 30: Global Market Volumes of Metallocene Resins/Elastomers in Non-Packaging Film Applications, by Type of Resin, Through 2025

Table 31: Global Market Volumes of Metallocene Resins/Elastomers for Agricultural Films, by Type of Metallocene, Through 2025

Table 32: Global Market Volumes of Metallocene Resins/Elastomers for Hygiene-Related Films, by Type of Metallocene, Through 2025

Table 33: Global Market Volumes of Metallocene Resins/Elastomers for Automotive Films, by Type of Metallocene, Through 2025

Table 34: Resins and Elastomers Competing within Metallocene Resins/Elastomers in Three Major Automotive Market Segments

Table 35: Global Market Volumes of Metallocene Resins/Elastomers for Wires and Cables, by Type of Metallocene, Through 2025

Table 36: Global Market Volumes of Metallocene Resins/Elastomers for Polymer Modification, by Type of Metallocene, Through 2025

Table 37: Global Market Volumes of Metallocene Elastomer Hoses and Tubing, by Type of Metallocene, Through 2025

Table 38: Global Market Volumes of Metallocene Resin for Rigid Food Packaging, by Type of Resin, Through 2025

Table 39: Major Applications of Resins Used in Nonwovens

Table 40: Selected Recent MLLDPE Resin Capacity Increases

Table 41: Selected Key Metallocene and Competitive Trade-Named Resins and Elastomers

Table 42: Abbreviations and Their Expanded Form used in This Report

## List Of Figures

### LIST OF FIGURES

Summary Figure: Global Market Volumes of Metallocene-Catalyzed Resins and Elastomers, by Major Application, 2019-2025

## I would like to order

Product name: Metallocene Technologies and Global Markets

Product link: <https://marketpublishers.com/r/M58B76B8BF4EN.html>

Price: US\$ 2,750.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/M58B76B8BF4EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970