

MARKETS AND PROFITABILITY

Market Analytics: Low Density Polyethylene (LDPE) - 2023

July 2023



This Report was prepared by NexantECA Energy & Chemicals Advisory ("NexantECA"). Except where specifically stated in this Report, the information contained herein is prepared on the basis of information that is publicly available, and contains no confidential third party technical information to the best knowledge and belief of NexantECA. The information has not been independently verified or otherwise examined to determine its accuracy, completeness or financial feasibility. Neither NexantECA, Subscriber nor any person acting on behalf of either shall have any liabilities for any loss or damage arising from or connected to the use of any information contained in this Report. NexantECA does not represent or warrant that any assumed conditions will come to pass.

The Report is for Subscriber's internal use only and shall be kept strictly confidential. The Report should not be otherwise reproduced, distributed or used without first obtaining prior written consent by NexantECA. Each Subscriber agrees to use reasonable effort to protect the confidential nature of the Report.

Copyright © by NexantECA (BVI) Ltd. 2023. All rights reserved.



Contents

1	Executive Summary	1
1.1	Introduction.....	1
1.2	Polyolefins Market Overview.....	8
1.3	LDPE	14
2	Polyolefins Industry Performance	18
2.1	Macroeconomic Overview	18
2.2	Polyolefins Overview	20
2.2.1	Global	20
2.2.2	North America	22
2.2.3	South America.....	25
2.2.4	Western Europe	28
2.2.5	Central Europe	36
2.2.6	Eastern Europe	39
2.2.7	Middle East.....	41
2.2.8	Africa	44
2.2.9	Asia Pacific.....	47
3	Low Density Polyethylene (LDPE)	49
3.1	Global	49
3.1.1	Consumption	49
3.1.2	Supply	51
3.1.3	Supply, Demand and Trade	52
3.2	North America	54
3.2.1	Consumption	54
3.2.2	Supply	58
3.2.3	Supply, Demand and Trade	59
3.3	South America.....	63
3.3.1	Consumption	63
3.3.2	Supply	67
3.3.3	Supply, Demand and Trade	68
3.4	Western Europe	71
3.4.1	Consumption	71
3.4.2	Supply	73
3.4.3	Supply, Demand and Trade	73
3.5	Central Europe	75
3.5.1	Consumption	75
3.5.2	Supply	76
3.5.3	Supply, Demand and Trade	76
3.6	Eastern Europe	78
3.6.1	Consumption	78
3.6.2	Supply	79
3.6.3	Supply, Demand and Trade	80



3.7	Middle East.....	82
3.7.1	Consumption	82
3.7.2	Supply	87
3.7.3	Supply, Demand and Trade	90
3.8	Africa	95
3.8.1	Consumption	95
3.8.2	Supply	98
3.8.3	Supply, Demand and Trade	98
3.9	Asia Pacific.....	100
3.9.1	Consumption	100
3.9.1.1	China.....	102
3.9.1.2	North-East Asia.....	102
3.9.1.3	South-East Asia	104
3.9.1.4	South Asia.....	107
3.9.1.5	Australasia	108
3.9.2	Supply	108
3.9.2.1	China.....	109
3.9.2.2	North-East Asia.....	109
3.9.2.3	South-East Asia	110
3.9.2.4	South Asia.....	110
3.9.2.5	Australasia	111
3.9.3	Supply, Demand and Trade	112
3.9.3.1	China.....	113
3.9.3.2	North-East Asia.....	114
3.9.3.3	South-East Asia	115
3.9.3.4	South Asia.....	116
3.9.3.5	Australasia	116

Appendices

A	Methodology	118
A.1	Market Dynamics Forecasting Methodology	118
A.2	Capacity Availability and Forecasting	118
A.3	End-Use Consumption Forecasting	118
A.3.1	End-Use Sector Growth	119
A.3.2	Penetration (New Application Growth).....	119
A.3.3	Downgauging and Recycling.....	120
A.3.4	Chain Inventory	120
A.3.5	Short-term Influences.....	120
A.3.6	Monomer Consumption Forecasting	120
A.4	Production and Trade Forecasting.....	121
B	The Polyolefins Industry – Technology	122
B.1	Polypropylene.....	122
B.1.1	Technology Overview.....	122
B.1.2	Business Developments.....	123



B.1.3	Technology Licensors or Technology Developers	124
B.2	High Density Polyethylene (HDPE)	125
B.2.1	Technology Overview.....	125
B.2.2	Business Developments.....	127
B.2.3	Technology Licensors or Technology Developers	128
B.3	Linear Low Density Polyethylene (LLDPE)	129
B.3.1	Technology Overview.....	129
B.3.2	Business Developments.....	130
B.3.3	Technology Licensors or Technology Developers	131
B.4	Low Density Polyethylene (LDPE)	132
B.4.1	Technology Overview.....	132
B.4.2	Business Developments.....	135
B.4.3	Technology Licensors or Technology Developers	136

Figures

Figure 1	Global and Regional GDP Performance	19
Figure 2	Global GDP and Polymer Demand Growth.....	19
Figure 3	Global Polyolefins Demand by Polymer and by Region, 2023.....	20
Figure 4	Global Polyolefins Capacity by Polymer and by Region, 2023	21
Figure 5	Global Polyolefins Net Trade, 2022.....	21
Figure 6	North America Polyolefins Demand by Polymer and by Country, 2023.....	23
Figure 7	North America Polyolefins Net Trade, 2023	24
Figure 8	South America Polyolefins Demand by Polymer and Country, 2023	26
Figure 9	South America Polyolefins Net Trade, 2023	27
Figure 10	Western Europe Polyolefins Demand by Polymer, 2023	33
Figure 11	Western Europe Polyolefins Net Trade, 2023	34
Figure 12	Central Europe Polyolefins Demand by Polymer and by Country, 2023	37
Figure 13	Central Europe Polyolefins Net Trade, 2023.....	38
Figure 14	Eastern Europe Polyolefins Demand by Polymer and by Country, 2023.....	39
Figure 15	Eastern Europe Polyolefins Net Trade, 2023	40
Figure 16	Middle East Polyolefins Demand by Polymer and by Country, 2023	42
Figure 17	Middle East Polyolefins Net Trade, 2023	43
Figure 18	Africa Polyolefins Demand by Polymer and by Country, 2023.....	44
Figure 19	Africa Polyolefins Net Trade, 2023	46
Figure 20	Asia Pacific Polyolefins Demand by Polymer and by Country, 2023	47
Figure 21	Asia Pacific Polyolefins Net Trade, 2023	48
Figure 22	Global LDPE Demand by End Use, 2023	50
Figure 23	Global LDPE Capacity Share by Marketer, 2023	51
Figure 24	Global LDPE Capacity Additions	51
Figure 25	Global LDPE Supply, Demand and Trade.....	52
Figure 26	Global LDPE Net Trade	53
Figure 27	North America LDPE Demand by End-Use, 2023	55
Figure 28	North America LDPE Supply, Demand and Trade	60
Figure 29	United States LDPE Supply, Demand and Trade	61



Figure 30	South America LDPE Demand by End-Use, 2023	64
Figure 31	South America LDPE Supply, Demand and Trade	68
Figure 32	Western Europe LDPE Demand by End-Use, 2023	72
Figure 33	Western Europe LDPE Supply, Demand and Trade	74
Figure 34	Central Europe LDPE Demand by End-Use, 2023	75
Figure 35	Central Europe LDPE Supply, Demand and Trade	77
Figure 36	Eastern Europe LDPE Demand by End-Use, 2023	78
Figure 37	Eastern Europe LDPE Supply, Demand and Trade	80
Figure 38	Russia LDPE Supply, Demand and Trade	81
Figure 39	Middle East LDPE Demand by End-Use, 2023	82
Figure 40	Middle East LDPE Supply, Demand and Trade	90
Figure 41	Africa LDPE Demand by End-Use, 2023	95
Figure 42	Africa LDPE Supply, Demand and Trade	98
Figure 43	Asia Pacific LDPE Demand by End-Use, 2023	101
Figure 44	China LDPE Demand by End-Use, 2023	102
Figure 45	Asia Pacific LDPE Supply, Demand and Trade	112
Figure 46	China LDPE Supply, Demand and Trade	113
Figure 47	End-Use Consumption Drivers	119
Figure 48	Monomer Consumption Drivers	121
Figure 49	Trade Considerations	121

Tables

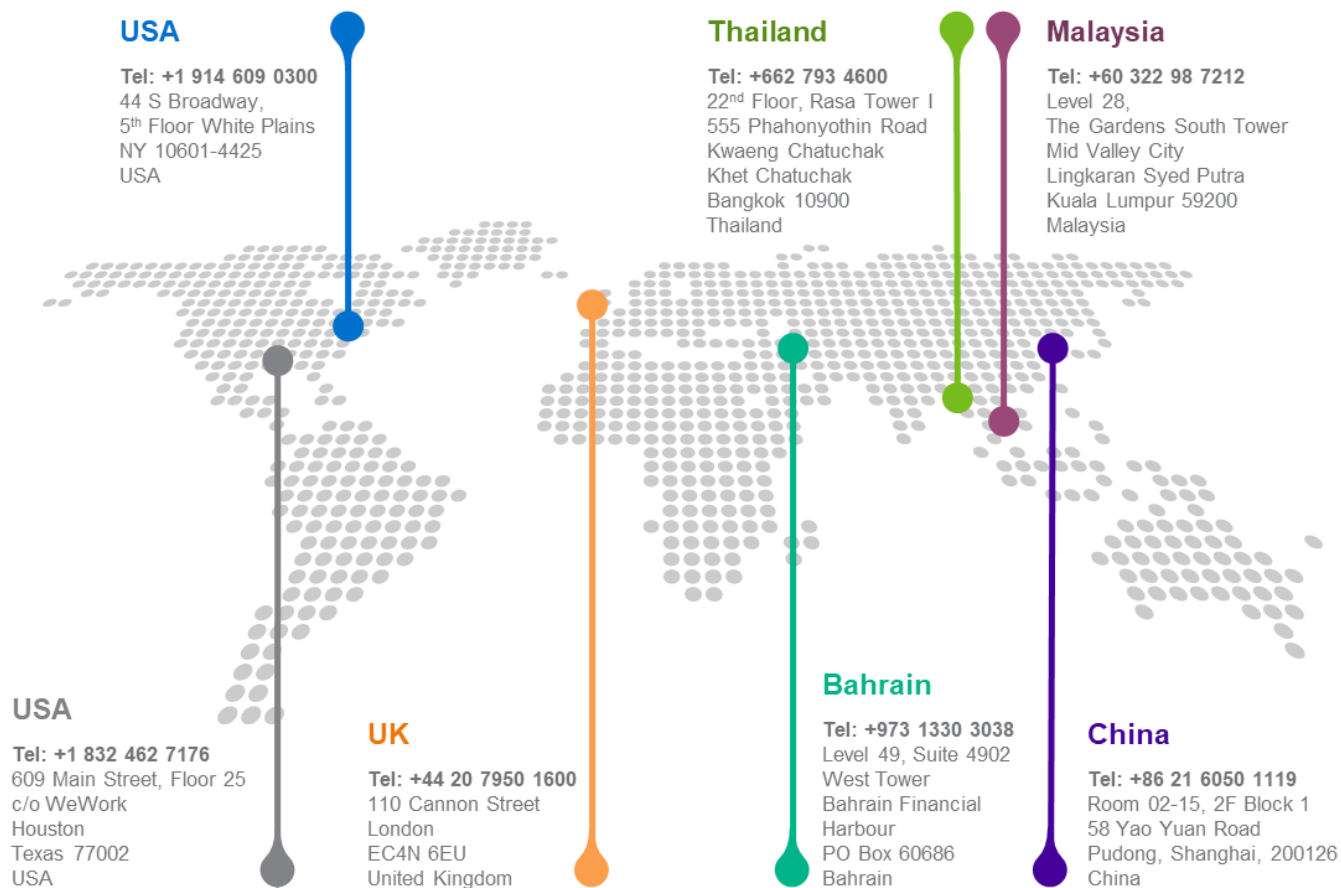
Table 1	Global LDPE Consumption by End-Use	50
Table 2	Global LDPE Consumption by Region	50
Table 3	Global LDPE Supply and Demand	52
Table 4	North America LDPE Consumption by End-Use	55
Table 5	North America LDPE Consumption by Country	55
Table 6	North America LDPE Supply, Demand and Trade	60
Table 7	United States LDPE Supply, Demand and Trade	61
Table 8	South America LDPE Consumption by End-Use	64
Table 9	South America LDPE Consumption by Country	64
Table 10	South America LDPE Supply, Demand and Trade	68
Table 11	Western Europe LDPE Consumption by End-Use	72
Table 12	Western Europe LDPE Supply, Demand and Trade	74
Table 13	Central Europe LDPE Consumption by End-Use	75
Table 14	Central Europe LDPE Supply, Demand and Trade	77
Table 15	Eastern Europe LDPE Consumption by End-Use	78
Table 16	Eastern Europe LDPE Supply, Demand and Trade	80
Table 17	Russia LDPE Supply, Demand and Trade	81
Table 18	Middle East LDPE Consumption by End-Use	82
Table 19	Middle East LDPE Consumption by Country	83
Table 20	Middle East LDPE Supply, Demand and Trade	90
Table 21	Africa LDPE Consumption by End-Use	95
Table 22	Africa LDPE Consumption by Country	96



Table 23	Africa LDPE Supply, Demand and Trade	98
Table 24	Asia Pacific LDPE Consumption by End-Use	101
Table 25	Asia Pacific LDPE Consumption by Country	101
Table 26	Asia Pacific LDPE Supply, Demand and Trade	112
Table 27	China LDPE Supply, Demand and Trade.....	113



NexantECA partners with clients to help them navigate the big global energy, chemicals and materials issues of tomorrow. We provide independent advice through our consulting, subscriptions and reports, and training businesses using expertise developed in markets, economics and technology through our fifty years of operation. We are entirely dedicated to supporting sustainable development of the industry and provide expert advice with efficiency, speed, and agility.



Disclaimer

This Report was prepared by NexantECA, the Energy and Chemicals Advisory company. Except where specifically stated otherwise in this Report, the information contained here is prepared on the basis of information that is publicly available, and contains no confidential third-party technical information to the best knowledge of NexantECA. Aforesaid information has not been independently verified or otherwise examined to determine its accuracy, completeness or financial feasibility. Neither NexantECA, Client nor any person acting on behalf of either assumes any liabilities with respect to the use of or for damages resulting from the use of any information contained in this Report. NexantECA does not represent or warrant that any assumed conditions will come to pass.