

Multiclient Report

Supplement III

***Single Site/Metallocene Market Analysis in
the Americas and Single Reactor Bimodal
High Molecular Weight HDPE
PolyOlefins Planning Service Report***

March 2005



Griffin House, 1st Floor South, 161 Hammersmith Road, London W6 8BS, UK
Tel: +44 20 7950 1600 Fax: +44 20 7950 1550

Copyright© by Nexant, Inc. 2004

“This report was prepared by Nexant, Inc (“Nexant”) and is part of the PolyOlefins Planning Services (POPS). Except where specifically stated otherwise 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 of Nexant. Aforesaid information has not been independently verified or otherwise examined to determine its accuracy, completeness or financial feasibility.

Neither NEXANT, Subscriber 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. Nexant does not represent or warrant that any assumed conditions will come to pass.

The report is submitted on the understanding that the Subscriber will maintain the contents confidential except for the Subscriber’s internal use. The Report should not be reproduced, distributed or used without first obtaining prior written consent by Nexant. Each Subscriber agrees to use reasonable effort to protect the confidential nature of the Report.”

Contents

Section	Page
1 Executive Summary	1-1
2 Introduction	2-1
3 North American Market Analysis	3-1
3.1 NORTH AMERICAN DEMAND	3-1
3.1.1 History.....	3-1
3.1.2 Metallocene Plastomers and Elastomers	3-10
3.1.3 Metallocene HDPE	3-12
4 Supply Analysis	4-1
5 Technology Development.....	5-1
5.1 ADVANCED SCLAIRTECH (AST).....	5-1
5.2 EASY PROCESSING LLDPE	5-6
5.3 SINGLE REACTOR BIMODAL HMW HDPE.....	5-8

Figure	Page
3.1 Improved Processability and Dart Impact Strength of Dow's Elite MDPE Versus Conventional Narrow MWD MDPE	3-4
5.1 Control of Molecular Weight Distribution	5-3
5.2 Univation Product Extension Platform.....	5-6
5.3 Easy Processing (EZP) Processing Benefits.....	5-7
5.4 Easy Processing (EZP) Downgauging Benefit.....	5-7
5.5 Comparison of Univation Single Reactor bimodal HDPE with an ExxonMobil Dual Reactor HDPE Film Grade	5-8
5.6 Comparison of Univation Single Reactor Bimodal HDPE with an Asian and North American Benchmark	5-9
5.7 Lot-to-Lot Uniformity of Single Reactor Bimodal HDPE	5-9
5.8 Comparative Cost Analysis	5-10

Table	Page
1.1 North American Single Site/Metallocene Demand	1-1
1.2 North American Single Site/Metallocene Demand by Country	1-1
1.3 South American Single Site/Metallocene Demand	1-2
3.1 North American Single Site/Metallocene LLDPE Demand (0.915-0.939 g/cc)	3-1
3.2 Typical Coextrusion Structures For Key Markets.....	3-2
3.3 Exceed™ In Food and Other Packaging Applications.....	3-3
3.4 Exceed™ In Heavy Duty Bag Applications.....	3-7
3.5 North American Metallocene Plastomer/Elastomer Demand	3-11
3.6 North American Single Site/Metallocene HDPE Demand.....	3-13
3.7 Single Site/Metallocene Demand in South America	3-14
3.8 Single Site/Metallocene LLDPE Demand in South America.....	3-14
4.1 Single Site/Metallocene Capacity in the Americas, 2005	4-1
5.1 Advantages of Bimodal Polymers	5-4