



## ***DuPont Dow Elastomers LLC to be Dissolved – Death of a Dream!***

### ***- A CMR Inc. Analysis***

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### ***EXECUTIVE SUMMARY***

On January 3, 2005, The Dow Chemical Company and DuPont announced that Dow had chosen to exercise its option to acquire assets related to Engage®, Nordel® and Tyrin® businesses, most of which, with the exception of conventional Nordel were originally contributed to DuPont Dow Elastomers (DDE), a 50/50 joint venture between DuPont and Dow, back in 1996. The option was offered in April 2004 as DuPont, Dow and DDE (DuPont Dow Elastomers LLC.) met to discuss the most appropriate response to the ongoing antitrust investigations related to DDE's EP(D)M business.

The option was designed to transfer the assets via a cashless transaction based on Dow's equity interest in DDE. As a consequence, DuPont will purchase Dow's equity interest in DDE for \$87 million. DDE will be dissolved and the remaining businesses, including Neoprene, Hypalon®, Kalrez®, and Viton®, originally contributed by DuPont will revert back to a fully owned subsidiary of DuPont.

DuPont Dow was able to make significant strides over the past 9 years, leading the industry in a variety of flexible and elastomeric products. The joint venture was a synergistic union of the elastomeric operations of two leaders counting on Dow's ethylene elastomers and other newer technologies.

DuPont Dow proved that an organization dedicated to elastomeric applications, independent of the technology is feasible and synergistically more appropriate. However, DuPont Dow as an organization could not survive the general organizational issues that are independent of its overall goals and objectives.

The break up brings Dow Chemical Company and DuPont back to where they were pre-1996 conditions. The break-up brings the Dow operations closer to the core groups. The integration of DuPont Dow's operations (notably EP Elastomers) back into Dow should be a seamless operation. The loss of DuPont's portion of the elastomers moves Dow one step backwards in their quest for the ideal Global elastomers organization.

The history will probably record DuPont Dow as "The Cinderella who missed her midnight coach ride due to avoidable twists in the story plot...?????????"

## **BACKGROUND**

The polyolefins and elastomer industry went through a rather dry period without any innovations during the 1980-89. With the exception of continued replacement of LDPE by LLDPE and developments in ethylene incorporation into polypropylene, there were very few new developments. The two major developments in the early 90s: (1) metallocene revolution, and (2) in-reactor ethylene incorporation, essentially pushed the polyolefins to the next level. Dow Chemical Company's Metallocenes commercialized under the leadership of Mr. Kurt Swogger and Mr. Chris Pappas.

There was no organization that took the end user view point of supplying flexible materials independent of the technology (thermoset vs. thermoplastic). In 1990 and even today, there are handful of organizations that can/could handle the challenge – among them Dow Chemical Company, ExxonMobil Chemical Company, Mitsui Chemicals and Bayer. Dupont was the traditional innovator of performance materials and thermosets, but lacked thermoplastic experience. In 1996 under the innovative leadership of Mr. Kurt Swogger and Mr. Chris Pappas and Mr. Don Faught of DuPont a dream of an ideal elastomers company was formed.

DuPont Dow Elastomers was the first attempt at forming a Global organization dedicated to elastomers, combining the markets, technologies and distribution systems of two major elastomers players. DuPont Dow began operations in 1996 as one of the largest joint venture in the area of elastomers. The joint venture was unique because: (1) it was one of the largest JVs in the area of plastics and elastomers, (2) it was the first organization that took hand-picked groups from two major plastics/elastomers organization in an attempt to form a new organization with its own identity and culture and (3) the first organization that expected double digit growth in 1996 purely based on technology and innovations.

Dupont Dow was focused on development, manufacturing and marketing of thermoset and thermoplastic elastomer products used in: (1) automotive, (2) chemical processing, (3) general rubber, (4) wire & cable, (5) construction, (6) molded goods, (7) durable adhesives, (8) oil and (9) polymer modification markets.

The joint venture linked DuPont's historical strength and experience in synthetic rubber manufacturing and marketing with then unique Dow's metallocene based INSITE technology for ethylene elastomers. DuPont contributed 80% of the joint venture's initial assets and Dow contribute 20% of the assets and all of the latest technologies developed and/or being developed for elastomeric materials other than polyurethanes.

Dow and DuPont together contributed global elastomer sales of about \$1billion – 80% from DuPont and 20% from Dow. DuPont's contribution included (1) EP Elastomers – Nordel, (2) Chlorinated Elastomers – Neoprene and Hypalon, (3) Fluorinated Elastomers – Viton, Kalrez and Zalak. Dow's contribution included (1) Chlorinated Polyethylenes – Tyrin, (2) part of metallocene-based polyolefins – Engage, and (3) specific product technology capability around INSITE catalysis. Although Dow's initial contribution represented 20% of the joint venture, the growth potential and future contribution was quite significant.

The major incentive for DuPont for forming the joint venture included (1) access to INSITE technology for EPDM product line, (2) some synergies between CPE and CSPE,

and (3) benefit from Engage-based products. In addition to the technology and R&D, Dow brought a unique way of conducting business in terms of development and speed to market. The major incentive for Dow included (1) access to global elastomers customer base, (2) market knowledge, (3) development capabilities, and (4) experienced base of employees.

The overall goal was to double the sales to \$2billion by 2001/2002 – The sales in 2004 were approximately \$1.2billion. Needless to say, DuPont-Dow did not meet its original objectives set out in 1996. The reasons could range all the way from 9/11 attacks to high executive turnover to cultural differences to pricing and everything in-between including ozone concentration in the atmosphere.

## **OBJECTIVES**

The major objective of this analysis is not so much to discuss DuPont Dow's performance, but, (1) to present the legacy of DuPont Dow Elastomers LLC as a could have been ideal elastomers company and (3) the impact of the transaction on the future direction of the global elastomer industry .

## **THE CURRENT EVENTS**

In 2003 authorities in the United States, the European Union and Canada started the investigation for antitrust violations in the synthetic rubber industry. The antitrust class-action lawsuit was filed by end users of EPDM from January 1, 1999 through May 2003. The lawsuit was filed against EPDM producers including: (1) Crompton Corp., (2) DuPont Dow Elastomers, and (3) Bayer Corp. The end users alleged that the EPDM producers conspired to fix, raise, maintain, or stabilize the price for EPDM above the level and violated the Sherman Anti-Trust Act. In last quarter of 2003 DuPont Dow Elastomers had been subpoenaed in connection with the probe.

In first quarter of 2004 DuPont and Dow concluded that it was best for both the companies to consolidate control over directing DDE's response to the investigations related to litigation. Based on the above rationale in April 2004 DuPont and Dow entered a series of agreements under which DuPont obtained complete control over directing DDE's response to these investigations and the related litigations. DuPont agreed to bear any potential liabilities and costs up to \$150 million and Dow agreed to pay any potential liabilities up to \$72.5 million by making contributions of 15% to 30% towards potential liabilities and costs that exceeded the initial \$150.

DuPont and Dow also entered an agreement under which Dow has the option to acquire certain assets related to ethylene and chlorinated elastomers from DDE in a non-cash equity redemption. Dow has until end December of 2004 to exercise this option. Under the agreement if Dow exercised its option, then DuPont would purchase DDE's remaining equity interest.

## **ANALYSIS**

DuPont Dow Elastomers was able to make significant strides over the past 9 years, leading the industry in a variety of flexible and elastomeric products. The joint venture was a synergistic union of the elastomeric operations of two leaders counting on Dow's ethylene elastomers and other newer technologies. These synergies between the

various businesses coupled with Dow's and DuPont's market and technical expertise made DuPont Dow the most suited to be an ideal flexible polymer/elastomer company.

***What did DuPont Dow achieve?***

1. An organization completely dedicated to elastomeric applications independent of the technology is feasible and synergistically more appropriate.
2. The traditional thermoset elastomers industry can and will embrace the latest technologies and adapt a portfolio approach to end user requirements.

***What DuPont Dow could not achieve?***

1. Double digit growth rate promised in 1996; Doubling the sales in six years
2. Integrating DuPont and Dow cultures to develop a new start-up with its own identity and culture

***As a casual observer, what caused the death of a dream organization?***

1. Difficulties in merging two unique cultures – (see all the articles during 1996-2000 on DuPont Dow presentations)
2. The loss of Mr. Chris Pappas and other architects including Dr. Jerry Lancaster
3. The unfortunate developments in EPDM price issues
4. The difficult economic conditions that are intolerant

***Where do we go from here?***

The transfer of the above mentioned assets brings Dow Chemical Company and DuPont back to where they were pre-1996 conditions. The break-up essentially adds to already mounting issues causing headaches to DuPont including the sluggish stock value. DuPont Dow operations were part of the Performance products group of overall DuPont Corporation and were always dependent on ENGAGE family of products for better return and performance.

The break-up brings the Dow operations closer to the core groups. The integration of DuPont Dow's operations (notably EP Elastomers) back into Dow will be a seamless operation. The loss of DuPont's portion moves Dow one step backward in their quest for the ideal Global elastomers organization.

***How will DuPont-Dow be recorded in the annals of History?***

The Cinderella who missed her midnight coach due to avoidable twists in the story plot... ???????...

For further details on DuPont Dow Elastomers please read our *New Generation Polyolefins Bimonthly Review that covered DDE in detail on a continuing basis over the decade*. Other details can be found in CMR's Polyolefins & Elastomers Strategic News Analysis.

For more information regarding this article or to discuss other matters pertaining to market research in the plastics and chemicals industries, please contact ***Dr. Balaji B. Singh at (281) 333-3313 or [Bsingh@CMRHouTex.com](mailto:Bsingh@CMRHouTex.com)***  
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