



DuPont Profile

E.I. DuPont de Nemours and Company is a world leader in the chemical manufacturing industry. Founded in 1802, DuPont is the ninth largest chemical company in the world with over \$34 billion in revenue from hundreds of plant sites located in over 90 countries. At the core of DuPont's approach to market-driven innovation and science is a longstanding commitment to sustainability and environmental stewardship.

The Opportunity

In 2008, DuPont expanded an existing product towards a new purpose – a flame-retardant coating used in household products as a new backing sheet for photovoltaic cells. These photovoltaic cells are used in the production of solar panels to capture solar light and generate electricity. Despite a targeted goal of 25 defects per 40,000 square feet of product, one of DuPont's large chemical plants averaged over 3,000 defects, and at times incurred over 100,000 defects. Consequences of such high defect rates include postponed product shipments and customer dissatisfaction. After six months of internal testing to correct the defect errors, DuPont was still unable to ship its product.

The Approach

QualPro assisted DuPont in assessing the problem and determining that the core issue stemmed from the supply chain of raw materials flowing into the site, rather than from a major problem with the plant itself. QualPro assembled a project team and worked closely with key stakeholders and employees involved in each step of the

supply chain to analyze multiple factors of production including solvent addition rates, viscosity, and line speed. QualPro consultants performed further analysis to incorporate the entire vertical supply chain of all five sites in order to ensure maximum improvement and seamless execution.

The Impact

QualPro consultants helped DuPont reduce plant defects by 75% in the

first trial test. Following a refining test to include the entire supply chain, QualPro consultants helped DuPont realize over 99% reduction in defects.

After drastically reducing its product defects, DuPont avoided over \$10 million in capital investments. Additionally, DuPont could ship its solar panel backing to customers in the solar panel industry without delay.

