

Case Study: EVONIK DEGUSSA CORPORATION



The Company:

Evonik Degussa Corporation is one of the leading specialty chemical companies in North America. With about 5,000 employees in the region, the company has 57 locations -- 33 manufacturing sites and 24 offices/labs/warehouses/distribution centres.

Of the corporation's 33 manufacturing sites, 28 are in the United States and five are in Canada. Evonik Coatings & Additives Business Unit is part of Evonik Industries, an international industrial group with a workforce of over 41,000 and activities in more than 100 countries all over the world.

The Evonik Brampton Colorants plant, established in 1967, manufactures both water and solvent-based pigment dispersions for the paint and coatings industry (architectural, industrial, etc.). The water-based systems consist mainly of water, glycols, pigments, and surfactants, while the solvent-based systems consist of pigments dispersed in resins and solvents.

Prior to undertaking any water reducing measures, the Evonik Brampton Colorants plant used an average of 180 m³ per day of water.

Water Savings Solutions:

Installed Chilled Water System within Milling Process

Evonik Degussa updated its milling process by replacing the once through cooling water system with a closed-loop chilled water system. Cooling water is used to maintain the temperature of each batch during milling. This cooling water is now re-circulated through a chiller to be reused.

Economic Benefits:

\$43,127 annually based on water reducing measures, plus a one-time Peel rebate of \$37,250, which reduces the payback period to 4.8 years

Water Savings:

54,385 m³ of water annually or 149 m³ per day

Water Reducing Measures	Cost of Implementation	Cost Savings (Rebate)	Water Savings (L/day)	Annual Savings
Chilled Water System	\$246,142	\$37,250	149,000	\$43,127

“Evonik Degussa is a Responsible Care company and operates under the highest safety, environmental and quality systems and policies. Investment in the site to ensure protection and conservation of our natural resources is one of our key objectives.”

Mort Achaia, Plant Manager

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