

# Cleaner Technology Demonstration Site Fact Sheet - *Fiscal Year 2002*

## InteliCoat Technologies South Hadley, MA

### Application of Green Chemistry Principals to Replace Traditional Solvent-Based Coating Systems

In fiscal year 2002, the Toxics Use Reduction Institute (TURI) identified several focus areas for its Cleaner Technology Demonstration Site (CTDS) program. One primary focus area was the application of green chemistry as a means of accomplishing toxic chemical use reduction. Green chemistry is a science-based approach to pollution prevention. It involves a set of principles for reducing or eliminating the use or generation of hazardous substances in the design, manufacture or application of chemical products. It seeks to focus on the earliest stage of materials and process design so that conventional end-of-pipe technologies can be avoided.

InteliCoat Technologies (formerly Rexam Image Products) applied for a CTDS grant to demonstrate its use of innovative alternative web coating formulations and processes. This demonstration fit in well with TURI's emphasis on providing an opportunity for Massachusetts industries and consultants to see practical applications of green chemistry. Employing green chemistry thinking, InteliCoat developed product lines that utilize non-solvent based coatings and reaction conditions, including water-based and UV-curable coatings, to significantly reduce the amount of toxic organic chemicals it uses and releases annually. InteliCoat presented information on its financial and environmental decision-making process for switching its primary product lines and the associated impact of the changes made for the company. Numerous industry representatives, environmental and engineering consultants, and regulatory agency personnel attended the demonstrations.

In conjunction with the CTDS presentation at InteliCoat, the Office of Technical Assistance, a non-regulatory agency affiliated with TURI within the Toxics Use Reduction Act program, worked with company representatives to develop the attached case study. The information contained herein provides a concise picture of the environmental and economic benefits realized by InteliCoat by implementing green chemistry in its operations. The work presented by InteliCoat and described in the attached case study clearly demonstrate that the application of green chemistry principals into daily production operations can provide tangible economic and environmental benefits to Massachusetts industries. For more information on green chemistry, the Cleaner Technology Demonstration Site program, or on the InteliCoat demonstration, please contact Pam Civic, Technical Support Associate for TURI (978-934-3142 or [Pamela Eliason@uml.edu](mailto:Pamela.Eliason@uml.edu).)