



## **The story behind blowing agents**

CFCs, a type of blowing agent, were commonly used to improve the insulation performance of plastic foam products. When the ozone depletion theory was first developed in 1978, we began seeking alternatives to CFCs. In 1988, well ahead of the government-mandated timing, The Dow Chemical Company began its own program to stop using CFCs and was the first manufacturer to do so.

The phase-out was completed at all nine North American plants by July, 1990. Since then, Dow has converted all of its 22 plants worldwide. Dow, the world's largest manufacturer of extruded polystyrene foam insulation and the largest U.S. supplier, was the first to begin conversion. It began just shortly after correlation between CFCs and ozone depletion was made. This early conversion saved 300 metric tons of carbon equivalent GHG emissions from being emitted into the environment.

The quick response was made possible by extensive research that began in 1974. It yielded what proved to be satisfactory CFC substitutes. Samples manufactured at that time have since undergone long-term insulation value aging tests and extensive physical property testing.

Dow is in full global compliance with the Montreal Protocol. STYROFOAM\* extruded polystyrene insulation products are manufactured with HCFC blowing agents. They have ozone depletion potentials more than 94 percent less than standard CFC blowing agents. Research is continuing to refine and improve all STYROFOAM extruded polystyrene products. Dow continues to aggressively seek and fund multi-million dollar research products that will lead to better replacement relative to the environment.

### **Energy Star, Energy Smart Schools**

In June, 1996, STYROFOAM extruded polystyrene insulation products joined the EPA's Energy Star Insulation Program as a charter member. It highlights STYROFOAM extruded polystyrene insulation as a product that allows builders to achieve home energy efficiencies at least 30 percent greater than the Model Energy Code. Energy savings benefit the consumer by lowering utility costs and benefits the environment by reducing CO<sub>2</sub> emissions (a key gas implicated in global climate change).

The business of STYROFOAM extruded polystyrene products became a member of the Department of Energy's Energy Smart Schools Partnership. The program is designed to retrofit/upgrade existing schools and to assist in the energy efficient design of over 6,000 new schools planned in the U.S. over the next decade.

## **Protecting homes, protecting the planet**

Beyond Dow's commitment to the environment in its manufacturing and recycling programs, STYROFOAM extruded polystyrene helps to conserve resources. STYROFOAM extruded polystyrene helps to keep you more comfortable wherever you live, work or play.

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