

## Largest State-of-the-Art SPD-SmartGlass Project at Indiana University



Plainview, NY – February 11, 2009- Announced today the completion of the largest SPD-SmartGlass window installation in the world, at the Indiana University Health Information and Translational Sciences Building using the latest generation SPD light-control film technology developed by Research Frontiers and produced by Hitachi Chemical Co., Ltd.



The completion of this SPD-SmartGlass installation is a milestone for this industry and sets a new standard of being able to produce large architectural-sized electrified glass panels containing SPD-Smart film. This film has the ability to have its tint level and light transmission characteristics infinitely adjusted from less than 1% to over 50% in a matter of seconds using a simple wall switch or remote control. In addition to manual control, it can also automatically adjust its darkness according to environmental conditions, thus maximizing the efficient use of daylight to conserve energy.

Glass produced with SPD-SmartGlass film also blocks 99% of harmful UV rays entering the building. Richard Thompson, Senior Associate University Architect for Research at Indiana University, promoted cutting-edge, “green” solutions for their IU research Center at the Health Information and Translational Sciences Building in Indianapolis for the IU School of Medicine. According to Thompson, “We wanted a high-tech glass that would eliminate mechanical shading systems in several areas throughout the building due to the unique characteristics of the architectural layout. Our goal was to incorporate the latest and most innovative technologies in the Center reflecting the innovative ongoing research in the facility, and to use energy saving systems where budget would allow.” Medical researchers, visitors and other dignitaries can experience the unique functionality of this state-of-the-art technology in an environmentally focused building.

Thompson continued, “The darkening ability of the SPD-SmartGlass gives us the power to transform the Legacy Boardroom for video presentations and conferences without mechanical blinds. We simply darken the glass, and access the A/V Controller; the lights go down low, and we launch our projection system. The room quickly gets dark enough to have a video conference and graphics-based meeting with ease.”

This SPD-SmartGlass project took place over the span of three years and was implemented in two phases. The first part consisted of the installation of 59 interior panels that were used in the Legacy boardroom, classrooms and lecture hall. These panels were mounted in standard extruded aluminum frames, which allowed the wires to be pre-threaded through the hollow framework. The laminated SPD-SmartGlass was fitted into place and then wired to controls.

After the first interior phase was complete, Phase 2 was implemented, and nine large exterior panels were produced and fabricated as high performance 1-inch insulated glass units. This gave the glass exceptional characteristics, with a variable and dynamic light transmission range and significant sound-attenuating properties. The combined laminated SPD light-control film and insulated glass virtually eliminates any outside noise generated by the main highway which is just a few hundred feet from the room.

“Hitachi Chemical provided many rolls of material which were then cut to size, and heat-fuse laminated between glass. If the panels were wider than the film, two pieces of film were able to seam within the same glass panel, to create an even wider span of glass - in this case, as large as 72 inches wide by 9 feet tall.”