

PPG offers colorful, energy-saving solutions

News Release May 5, 2009

Expanded performance, appearance options



Solarban 70XL glass was used in the construction of a new multi-disciplinary research building at Harvard University, Cambridge, Mass.

The PPG Reno plant uses Duranar Energy Star Rated roof coatings. The ULTRA-Cool coatings represent the most recent generation of energy efficient coatings projects from roofs.

PPG offers architects a single, comprehensive resource for designing sustainable “building envelopes” through advanced architectural glasses and metal roof coatings.

An independent study has shown that architects and building owners can realize annual energy savings of more than \$60,000 for a prototypical glass-walled, eight-story office building when substituting PPG’s *Solarban 70XL* solar control, low-e glass in place of dual-pane tinted glass. The same study showed equipment costs for heating, ventilation and air-conditioning (HVAC) may be reduced by up to \$400,000. Beyond these cost savings, related carbon emissions from the building were cut by 400 to 500 tons per year, the annual output of about 75 passenger cars.

Energy and environmental savings have the potential to escalate when architects also specify *Duranar ULTRA-Cool* metal roof coatings for their projects. These products feature an advanced metal coating that reflects the sun’s heat energy, keeping buildings cooler and dramatically reducing the heat-island effect associated with conventional roofing materials.

PPG advanced glasses and coatings share the ability to deflect solar heat through the use of proprietary coating technologies. *Solarban 70XL* glass incorporates the industry’s first triple-silver coating, enabling it to reflect more than 73 percent of the sun’s heat energy in a standard one-inch insulating glass unit. The same coating also transmits almost 65 percent of the sun’s visible light, which minimizes reliance on artificial lighting. These combined performance attributes are unmatched by any commercially available architectural glass.

The performance of *Duranar ULTRA-Cool* metal roof coatings is equally impressive, due to its ability to reflect infrared energy. In the United States, “solar reflectance” (SRV) is the most recognized measure for the “coolness” of a roof. A steep-sloped roof (defined as a roof with a pitch of greater than 2:12) is generally considered “cool” if maintains an SRV greater than or equal to 25 percent. A low-sloped roof achieves the same distinction if its SRV is greater than or equal to 65 percent.

Even with dark evergreen, slate gray or terra cotta red colors, *Duranar ULTRA-Cool* coatings achieve SRV ratings of 28.49, 39.96 and 30.92, respectively. Regal white, light stone and other lighter-toned coatings achieve SRV ratings 55 and 75.

These ratings show that the overwhelming majority of *Duranar ULTRA-Cool* coatings colors meet the minimum SRV values for steep-slope applications, while many light or white colors achieve the same criteria for low-slope roofs. Even more impressively, *Duranar ULTRA-Cool* coatings lose less than that 5 percent of their original reflectivity over a 30-year lifetime. As a result, they have numerous colors registered with the Cool Roof Rating Council (CRRC) and Energy Star, greatly expanding the design palette available to contemporary architects.

Performance and aesthetic versatility also are the hallmarks of PPG architectural glass. A broad range of ocean-, earth- and sky-inspired tints can be combined with *Solarban 70XL* and *Solarban 60* solar control, low-e glasses to save energy and meet the appearance demands of virtually any building project.

PPG also combines performance and color in tinted solar control, low-e glasses such as *Solarban z50* glass and *Solarban 80 Optiblue* glass. The richness of these tints can be further enhanced with the mirror-like reflectivity of *Solarcool* coatings or the subtle reflectivity of *Vistacool* coatings.

PPG glass and coatings have been selected to work in tandem on dozens of architectural landmarks throughout the United States, from football stadiums and convention centers to office buildings, schools and airports.

To learn more about PPG’s entire range of environmentally progressive glass and metal coatings, visit www.ppgideascape.com.