

**Extra-clear glass flooring uses tempered, low-iron glass and SentryGlas® structural interlayers**

At 1450 ft tall, the Willis Tower (formerly Sears Tower) in Chicago is the tallest building in the Western Hemisphere. Now it gets a further distinction as host of a 103-story-high, all-glass visitor attraction called “The Ledge” where adventurers can step out into the sky for a heart-pounding view of an ant-like streetscape nearly a quarter mile below.

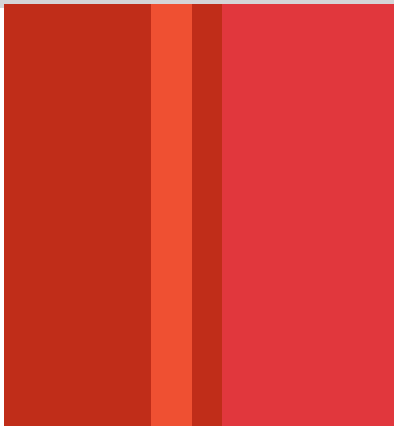
The Ledge is part of the already well-visited Skydeck at the Willis Tower. Since The Ledge opened in July, thousands of people have enjoyed the thrill-seeking experience each day. Visitors can enjoy the experience safely because it was constructed to bear five tons of weight.

The Ledge consists of two separate boxes jutting a little more than 4 ft out past the edge of the Skydeck facade, creating a gravity-defying view that’s sure to thrill those who dare step out onto the glass floor. Strength of the all-glass construction comes from laminated glass, a multilayered sandwich of glass and clear adhesive interlayer sheet material that holds the layers of glass together. The laminated glass is assembled using minimally obtrusive framing, with bolts through the glass holding it to a retractable structural rail.



In July 2009, the Skydeck Chicago at the Willis Tower opened a new visitor attraction called “The Ledge” offering birds-eye views and heart-pounding thrills from an earth-defying glass cube 103 stories up in the air.

(Photos courtesy of Skydeck Chicago at Willis Tower)



**DUPONT™ SENTRYGLAS® CASE STUDY**

# Laminated glass strength and clarity reach new heights at Skydeck Chicago



**SentryGlas®**

## DUPONT™ SENTRYGLAS® CASE STUDY



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### Stiff, tough, clear interlayer adds to glass floor safety and strength

The crystal-clear, see-through floors for The Ledge are made with 60-mil (0.060-inch) DuPont™ SentryGlas® structural interlayers sandwiched between three half-inch plates of fully tempered low-iron glass, a combination that's unmatched for strength and clarity. Compared with traditional interlayers, DuPont™ SentryGlas® is five times tougher and up to 100 times stiffer, making it an ideal choice for improved structural performance in applications such as flooring, balustrades, building facades and security glazing.

Original Sears Tower architectural firm Skidmore, Owings and Merrill (SOM) designed The Ledge so that the fully enclosed glass boxes retract into the building, allowing easy access for cleaning and maintenance. Experts in international structural glass design, Halcrow Yolles, fully designed and detailed all the glass and steel components. Beginning with the architect's original concept, the engineers took the design one step further by eliminating all perimeter structural steel at the sides and along the floor of the glass enclosures and creating a nearly invisible support system. Lamination of The Ledge floor was done by Prelco in Montreal, Canada.

*The information contained herein involves the use of DuPont materials in end-use applications designed by others. The proper design, manufacture and acceptance of laminated glass meeting a user's project requirements is the responsibility of the user. Glass and glazing system performance criteria, testing requirements, manufacturing methods and processing conditions vary by project and location. Information about specific applications is given and accepted at the user's risk and confirmation of its validity and suitability in particular cases should be obtained independently. The DuPont Company makes no guarantees of results and assumes no obligations or liability in connection with its advice. This publication is not to be taken as a license to*

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