

A Cooler Ride for Lift Passengers. An Energy-saving Solution for Property Owners.



3M™ Sun Control Window Film Prestige Exterior Series

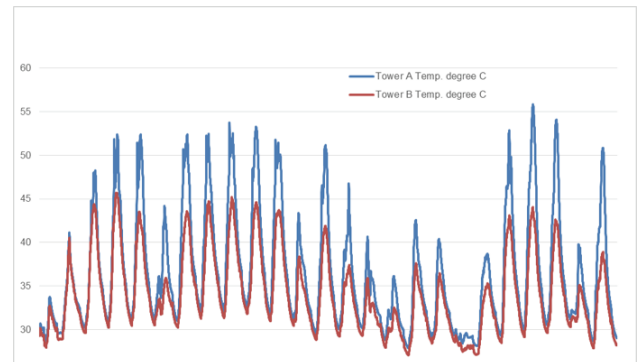
All-glass Footbridge Lift Towers —
Hong Kong, China

► Project Scope

Lift Towers are one of the common barrier-free facilities allowing public access to walkways or footbridges in Hong Kong. The all-glass lift towers fitted to footbridges are everywhere around the city. Exposed to sunlight almost all year round, the temperature inside the lifts can be sizzling hot during summer days.

3M conducted an experiment using its proprietary Sun Control Window Film PR Exterior 40. The film was applied to every panel of Tower B on the Footbridge Lift Tower. No film was applied to Tower A, the control. Temperatures in each tower were recorded and compared for a period of two weeks.

Two Week Temperature Difference
between Towers A and B



As shown in the chart, the temperature within the shafts could get as high as 57°C during the summer time. With the installation of 3M™ Sun Control Window Film, the temperature inside Tower B was substantially reduced (by up to 12°C) and allowing passengers to experience a more comfortable ride.

If your facility is fitted with glass windows or glass panels, and you are searching for a solution to help improve energy efficiency—especially in the summer days—this is an excellent example of how 3M™ Sun Control Window Film can help make a difference.

► Situation

Situated near a housing estate, the all-glass lift towers are fitted to a newly built footbridge located on the waterfront overlooking the harbour. As the lift towers—with the 20-foot floor-to-ceiling glass panels—face east, passengers have to endure the morning glare on sunny days.

► Solution

The recorded temperature data clearly shows that 3M™ Sun Control Window Film can help reduce solar heat.

By reducing up to 68% of the solar heat coming through the window, occupants can enjoy a cooler, more comfortable environment while property owners can save money with reduced air-conditioning costs.

Blocking up to 99% of the sun's harmful ultraviolet rays, the lift structure is protected against aging from UV and heat penetration. The maintenance costs can be reduced and the service lifespan of the lifts maintained or even extended.

Case Study Summary

Challenge: Maintain cooler and more comfortable indoor environment all year round, especially on bright summer days.

Product Selection: 3M™ Sun Control Window Film Prestige Exterior 40 was selected for the best of heat/glare reduction and UV protection.

Benefits: The lift passengers experience a cooler and more pleasant environment, and the property owners can save money as the result of reduced cooling costs.

Excellent performance through 3M Science.

3M™ Prestige Series Films use non-metallized, multilayer optical film and nanotechnology to achieve what other films simply can't:

- **Enhanced comfort and protection** — The spectrally selective films reject up to 97%* of the sun's heat-producing infrared light, helping keep interiors cooler, while reducing the load on cooling systems and helping to save energy. By blocking up to 99.9% of UV rays, the films help protect furnishings from the harmful effects of the sun. And according to the Skin Cancer Foundation, window film is one of several recommended safeguards against UV damage.
- **Unsurpassed capabilities** — What sets Prestige Series Films apart is the precision with which light waves are controlled as they pass through or reflect off of hundreds of layers of film. Compared to other films, the Prestige Series Films can increase their performance at a faster rate as the sun's angle increases. That means greater protection and comfort when you need it the most. When the sun is working its hardest, so is 3M's Prestige Series.
- **Enhanced views and aesthetics** — Films that reject heat tend to have high reflectivity. Not with Prestige Series Films. These films are optically clear and can offer reflectivity that is lower than glass in some cases. That means the same visual clarity, inside and out.
- **No corrosion. No signal interference.** Being non-metallic, Prestige Series Films aren't susceptible to corrosion in coastal environments. They also don't interfere with electronic device signals.

*3M Prestige Series Films block energy across the entire IR range. The 97% rejection value is based on performance in the 900-1000 nanometers (nm) range.



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