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ONTARIO LEISURE CENTRE STAYS AHEAD OF
THE CURVE WITH CHANNEL GLASS

Project: Bradford West Gwillimbury Leisure Centre
Location: Ontario, Canada
Architect: Salter Pilon Architecture in association with Lett Architects
Product: Pilkington Profilit™ translucent channel glass system with Low-E coating



Ontario's new Bradford West Gwillimbury Leisure Centre, designed by Salter Pilon Architecture, is one of the largest multi-use recreation facilities in the province. However, it does more than foster a healthy lifestyle through recreational and cultural activities. Its 1,400 square-foot serpentine channel glass wall delivers dramatic visual appeal for residents—one of the town's three core visions for the new facility.

To create the curving glass façade, the design team turned to Technical Glass Products' Pilkington Profilit™ channel glass system. Unlike conventional windows and glass block, its slender frames and narrow channel glass segments allow for tight radii—as low as 1.9 meters (78 in.). While this flexibility enabled the design team to create a serpentine configuration, one technical challenge was ensuring a homogenous appearance in areas of the façade with different radii. Channel glass segments tangent to one another flow smoothly into adjacent curves or straight sections. Creating a seamless transition is more complex where different radii prevent tangent segments.

To ensure the U-shaped channel glass did not interfere with the joint connection and interrupt the channel glass wall's uniform look, flanged L-shaped channel glass planks were installed on one side of the joint transition and full U-shaped channel glass planks on the opposing side. This configuration allowed the channel glass framing head and sill components to be stretch-formed into a smooth continuous structure with a precise radius.

The serpentine channel glass application is formed of a mixture of standard cast glass and clear channel glass. The standard cast glass diffuses light through its textured surface while also obscuring vision. Clear cast glass adds a second layer of visual interest and provides occupants with greater access to daylight and views to nature. This glazing combination helps the system meet the different light transfer, privacy and visibility needs of the various rooms it encloses. A low-emissivity coating further boosts the façade's thermal performance.

The completed façade flanks the Bradford West Gwillimbury Leisure Centre's east exterior wall. It breaks up the building's rectangular shape and serves as a surround for a lobby, meeting room and multipurpose room. By day it transmits light into the leisure centre's interior rooms. By night, its backlit form helps welcome people inside.

TGP's Pilkington Profilit channel glass soars up to 23 feet, can be installed vertically or horizontally, and formed into straight or curved walls. It is available in a variety of textures and colors with varying degrees of translucency, allowing light through while maintaining privacy. Pilkington Profilit can be used in interior or exterior applications, with insulating Lumira® aerogel for superior energy efficiency.

For more information on Pilkington Profilit channel glass, along with TGP's other specialty architectural glazing materials, visit www.tgpamerica.com.