Advanced sealants secure and protect

The Shanghai World Financial Center (SWFC) is among the tallest, most intricately designed buildings in the world. The tower’s design emphasizes a symbolic link between heaven and earth with its striking form—a square prism intersected by two arches with its signature cutout top.

Constructing the 101-story tower posed extraordinary challenges. Earthquakes, typhoon-level winds, and extreme weather conditions are all quite common in Shanghai—and demanded advanced sealant solutions that could endure severe impact and help reduce the potential for damage. GE Silicones Structural Silicone Glazing (SSG) Sealants and Weatherseal Sealants offered the outstanding strength, flexibility, and durability the building needed to secure and protect its awe-inspiring design.

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“The team of experts behind GE Silicones has a proven track record in delivering [quality, high-tech sealant materials] and therefore is a trusted supplier,” said Ted Graban, general manager of the project’s curtainwall fabricator, Gartner Shanghai (Permasteelisa Group).

Built-in, proven protection
To construct the tower’s complex curtainwall system, Gartner Shanghai chose GE Silicones SSG4400 UltraGlaze* sealant. With excellent strength and tear resistance, SSG4400 UltraGlaze sealant helped create a lasting bond between the glass and the SWFC’s aluminum frame—one that exceeded the required safety guidelines by five times.

Streamlined fabrication
Gartner Shanghai completed fabrication of the curtainwall in just two years, thanks in large part to the adjustable work life, rapid deep section cure, and low pumping viscosity of SSG4400 UltraGlaze sealant. These attributes allowed for quicker production and assembly of fabricated units in-shop.

A trusted system
The compatibility of GE Silicones products was also critical to the project’s design needs. Gartner Shanghai chose GE SCS9000 SilPruf* NB sealant knowing it could securely adhere to the stone sections of the structure. The solution was capable of resisting dirt pick-up, as well as avoiding surface streaking and substrate staining.

Collaboration for success
Today, the Shanghai World Financial Center is a highly recognized building, attracting some of the largest and most successful financial services firms as tenants. Its inventive design and soaring height are a testament to the efficacy of GE Silicones sealants and the deep experience of its team of technical experts.

“The GE Silicones team of technical experts responded to unique design requirements and implemented focused, on-site training and oversight that were instrumental in the success of this project.”

DANIEL CHOI,
Senior Project Manager
Gartner Shanghai

NOTE: Performance results are those of reported accounts, and are not to be relied upon as typical or expected under any other circumstances. Performance results will vary depending upon a number of factors. Prospective customers should rely solely upon their own evaluative techniques to determine what results are attainable and optimal to their specific needs. Further note that GE Silicones are not endorsed by or affiliated with the owner(s) of the Shanghai World Financial Center.

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