

China Central Television

Beijing, China

UltraGlaze™ SSG4400
Sealant Fortifies a
Geometric Wonder

A Versatile Sealant for a Unique Design

In 2008, the Chinese government was busy implementing grand plans ahead of the Beijing Summer Olympics. Constructing a state-of-the-art headquarters for China Central Television (CCTV) was high on the list. Its radical design featured a loop of six horizontal and vertical sections, creating an eye-catching structure.

This bold idea faced many structural and technical challenges due to the building's unique geometry

and seismic location. Beijing Jangho Curtain Wall Co., Ltd., the façade fabricator, chose UltraGlaze Structural Silicone Sealants (SSG) for their trusted strength, flexibility, and reputation as highly dependable in atypical circumstances.



"We needed a [collaborative] partner who had both a [strong product offering] and the ability to [help] manage the inevitable technical challenges that would come in creating a building with such an unusual design."

Zhang Sheng
Vice President
Jangho

Limitations Redefined

The Momentive Performance Materials (MPM) team considered many challenges when proposing a product for the CCTV building. Two independent towers in the design faced exposure to powerful winds and surface temperature variations. Building the curtainwall façade required assembling 27,400 pieces—all in untraditional shapes and sizes—within an irregular frame. Manufacturing and installing these pieces would take more time and effort than usual, while still facing a hard deadline. Plus, the structure was in the middle of an earthquake zone, making structural integrity a strong focus.

In consideration of the seismic threats, the large glass size, and the irregular-shaped joints, +/-15 percent movement capacity was deemed necessary. The project also required a sealant with excellent processing and flowability to allow for easy joint filling.

After conducting multiple tests onsite and at Jangho's lab, the MPM team helped Jangho determine that UltraGlaze SSG4400 sealant offered the properties required to successfully and safely construct the building. The consistency of UltraGlaze SSG4400 sealant proved to be viscous enough to hold the joints stable during the cure phase, as well as capable of flowing into tight spaces to fill cavities thoroughly.



Seamless Process, Superb Results

The façade of the CCTV building was completed in January 2008. Start to finish, the façade fabrication took about 18 months—six months quicker than is average for a building as complex as CCTV. With the help of the MPM experts, Jangho discovered the right solution to help keep the project on track and ensure structural integrity. "[The] MPM [team] tapped into their global experience so that we could best serve our customer," says Sheng.

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 MPM is not endorsed by or affiliated with the owner(s) of China Central Television.

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