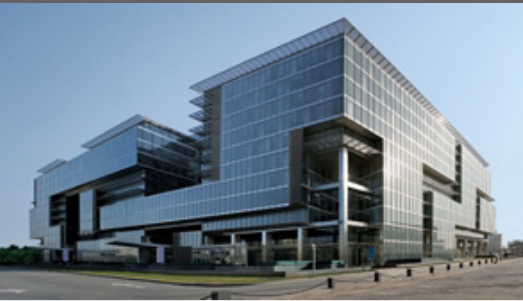


Silicone solutions help create intelligent double-skin breathing glass curtain wall

Case study: Beijing Chemsunny World Trade Center



PROJECT

100% silicone sealants from Dow Corning were used in the development of the intelligent and ecological double-skin breathing glass curtain wall and the glass curtain wall of the atrium lobby of Beijing Chemsunny World Trade Center.

PRODUCTS

Dow Corning® brand 3362
Structural Insulating Glass Sealant

Dow Corning® brand 791
Weatherproofing Sealant

Dow Corning® brand 993
Structural Sealant

KEY PARTICIPANTS

*Skidmore, Owings & Merrill LLP
Architecture design firm*

*Schmidlin Ltd.
Curtain wall consulting firm*

*Zhongshan Shengxing Glass Service
Co., Ltd.*

Curtain wall manufacturer

*Dow Corning Corporation
Silicone sealant provider*

The Beijing Chemsunny World Trade Center was designed by Skidmore, Owings & Merrill (SOM) chief designer Adrian D. Smith. The building's façade consists of an intelligent and ecological double-skin breathing-type modern glass curtain wall.

A double-skin breathing glass curtain wall is the most energy-efficient glass curtain wall system due to its improved heat conduction, sunshade effect, and reduced energy consumption. It secures improved air ventilation and eliminates dust accumulation, allowing for improved living conditions and work environments. In heavy weather, windows can be opened for fresh air to reduce the occurrence of air conditioning syndrome.

Demanding requirements for sealing performance

The double-skin breathing glass curtain wall is composed of two layers of glass curtain wall and an air corridor in between. To meet the requirements for natural ventilation, energy savings and heat insulation as well as waterproofing and dustproofing, the air-tightness and water-tightness of the curtain wall were crucial factors for the success of the project.

Professional silicone sealant solution

As an established technical leader in the silicone industry with deep experience in the China market and full understanding of the architect's design concept, Dow Corning recommended its *Dow Corning®* brand 3362 Structural Insulating Glass Sealant as the secondary sealing material for the insulating glass units and *Dow Corning®* brand 791 Weatherproofing Sealant and *Dow Corning®* brand 993 Structural Sealant for the curtain wall. Both products aligned with the strict project requirements for air-tightness and water-tightness.

Dow Corning 3362 Structural Insulating Glass Sealant is a two-component neutral and curing silicone sealant designed for the application in high performance insulating glass units. It has been certified by EN1279-3 for its air-tightness and gas concentration. It enjoys excellent stability under extreme conditions.

Dow Corning 791 Weatherproofing Sealant is an ideal sealing material for extension, connection, surrounding sealing and other displacement interfaces. It features great weatherproofing capabilities that are free from sun/rain/snow/ozone impact, and retains superior performance even under extreme conditions or sharp temperature fluctuations.

The versatility of *Dow Corning* 791 Weatherproofing Sealant, *Dow Corning* 993 Structural Sealant and *Dow Corning* 3362 Structural Insulating Glass Sealant applied to the Beijing Chemsunny World Trade Center project enabled the world's largest intelligent and ecological double-skin breathing-type glass curtain wall.

Full range of technical support services

In addition to top-quality silicone sealant products, *Dow Corning* offers a range of professional technical services to ensure proper product application and a normative construction process. These services include blueprint inspection and basic materials test services, plus consultation on methods of curtain wall project management. Coupled with comprehensive quality control processes and manufacturing technology training at production base and construction site, we work with you to ensure high efficiency and quality of the whole curtain wall system.

Result: an innovative, eco-friendly new landmark

Representing a total investment of about ¥3 billion, the Beijing Chemsunny World Trade Center project was

cited by the China Ministry of Construction in 2005 for its superior technology. It was inspected and accepted by an expert team on November 22, 2007, becoming the most environmentally friendly and innovative landmark building on Changan Street.

How to contact us

Dow Corning has sales offices, manufacturing sites, and science and technology laboratories around the globe. To learn how *Dow Corning* can help your business, contact your nearest Customer Service Specialist – find out how at dowcorning.com/contactus.

Images: Page 1 - AV11475

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

DOW CORNING SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.

DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Dow Corning is a registered trademark of *Dow Corning* Corporation.
We help you invent the future. is a trademark of *Dow Corning* Corporation.

©2010 *Dow Corning* Corporation. All rights reserved.

Form No. 62-1553A-01

DOW CORNING

We help you invent the future.™