

## **Half-day workshop on Control of Tempered Glass and Use of Sealants in buildings**

Organized by  
Façade Group, Hong Kong Institute of Steel Construction  
Department of Civil and Structural Engineering, The Hong Kong Polytechnic University

Supported by  
Joint Structural Division, The Hong Kong Institution of Engineers

Sponsored by  
Dow Corning Asia  
Xinyi Group (Glass) Co. Ltd

Date 日期 :	14 September 2012 (Friday afternoon)
Venue 會場:	Room TU103, The Hong Kong Polytechnic University,
Time 時間 :	1:45 pm (registration) for 2:00 pm to 5:45 pm

### **Scope and Objectives**

Breakage of tempered glass may be attributed to three primary causes, i.e. design fault, bad workmanship and spontaneous breakage respectively. Amongst these causes, the nickel sulphide spontaneous breakage is believed to be a common cause that is directly related to the quality assurance and control in the course of manufacturing tempered glass.

In the advent of a series of incidents on glass breakage, the control on the tempered glass is substantively tightened. As stipulated in the Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP) APP-37 on Curtain Wall, Window and Window Wall Systems, the following documents are required to be submitted: -

- Quality Assurance Scheme by the glass manufacturer prior to the consent application of the glass works;
- Heat Soak Process Compliance Report by the RSE prior to the application of an occupation permit; and
- Quality Supervision Report by the RSE prior to the application of an occupation permit.

The workshop covers the basics in the structural use of glass as well as the framework of the building control, and delivers in detail the requirements of the above mentioned requisite documents. For instances, the documents and tests that need to be carried out by the manufacturer in the quality assurance would be cited. The techniques of calibrating the heat soak oven and the proper installation of the thermocouples on the glass surface would be mentioned. The rationale of the heat soak supervision would be discussed in great detail.

Moreover, it is our privilege to invite an expert from USA on structural sealant technology to deliver a talk on the use of the sealant in structures.

### **Speakers**

The HKISC is very privileged to invite **Ir Dr Andrew SO Kwok-wai and Mr. Lawrence (Larry) Carbary**.

**Ir Dr Andrew SO Kwok-wai** is a Corporate Member of the HKIE as well as a profound expert in the structural use of glass, to deliver the workshop. Ir Dr. SO was a Committee Member of the Working Group commissioned by the Buildings Department on the revamp of PNAP APP-37. Ir Dr SO is the Director of RED Laboratory, conducting numerous curtain wall tests and safety glass impact tests.

Given the above solid background, it is no doubt that he is the right person to explain the framework of the building control as well as to offer practical case studies to elaborate the essence of the PNAP.

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**Mr. Lawrence (Larry) Carbary** is a Construction Industry Scientist at Dow Corning Corporation. He graduated from Michigan Technological University with Bachelor of Science in Chemical Engineering in 1982 and joined Dow Corning. He began working on the development and application of one and two part silicone sealant technologies for the construction industry. During his 29 year career he has been located in Fremont California, Seoul Korea and Midland Michigan. He is currently the senior member of Dow Corning's Construction Technical Service Staff working on new technologies for commercial façade insulation, sealing and glazing techniques. He is internationally recognized with more than 25 publications for ASTM and construction trade Journals on the topics of curtain wall sealing, aesthetic considerations and restoration. He has given more than 30 presentations at national and international organizations such as ASTM, CSI, SWRI, SEAL, ACI, the Chicago AIA Technical Committee, and the Boston Society of Architects. He is the lead delegate for the US on ISO TC 59/SC 8 International committee on Building Sealants. He is very active within ASTM C 24 Committee on Building Sealants as demonstrated by his chairmanship of ASTM C24.87 International Standards, ASTM C24.30 Adhesion, his election into the ASTM C24 Sealants Hall of Fame in 2005, and a recipient of the ASTM Award of Merit with accompanying title of Fellow of ASTM in 2007. Currently he is the principal investigator of the US Department of Energy AARA project DE-EE0003915 on high performance facades as part of his work on high performance insulation systems for commercial construction

The workshop is tailor-made for building professionals, façade practitioners, Technically Competent Persons (in particular T3 under the RSE stream and T1 under the RC stream) to attend.

### Registration

Please send the completed registration form to Mr Sam CHAN, Secretary of the Institute of Steel Construction, c/o Room TU743, Department of Civil and Structural Engineering, The Hong Kong Polytechnic University, Hung Hom, Kowloon by 7 September 2012. (Fax No.: 2334 6389) or through email: samchan@hkisc.org.

### Programme

Time	Programme
1:45 pm	Registration
2:00 pm – 3:30 pm	Structural Use of Glass – by Ir Dr Andrew SO
3:30 pm – 3:45 pm	Break
3:45 pm – 4:15 pm	Control of tempered glass in buildings – by Ir Dr Andrew SO
4:00 pm – 5:00 pm	Application of structural sealant in glass structures – by Mr. Larry Carbary
5:15 pm - 5:30 pm	Q & A
5:45 pm	Collection of CPD certificates; End of workshop



**REGISTRATION FORM**  
***(To be replied on or before 7 September 2012)***

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Please follow the 2-step registration procedure:

1. Fax the completed registration form to *Mr Sam CHAN* (Fax: 852-2334 6389) or email to **samchan@hkisc.org** for registration by **the deadline**.
2. Post the completed registration form within 7 days together with a crossed cheque payable to **Hong Kong Institute of Steel Construction Limited** to *Mr Sam CHAN*, at:

Room TU712, Department of Civil and Structural Engineering,  
The Hong Kong Polytechnic University, Hunghom, Kowloon, Hong Kong, China.

**To: Mr Sam CHAN**

**Fax: 2334 6389**

Personal Details:

Title	Name in full (Block Letter)	Name of Company	Tel.	Fax	E-mail address	HKISC/HKIE Membership No. (if any)
1.						
2.						
3.						
4.						
5.						

Postal Address: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**CPD Certificate of Attendance** Please tick the appropriate box to indicate your choice:

- Yes, I/ we would like to have CPD certificate(s).       Not request for certificate(s).

**Registration fees**

HKISC member	HKIE member, RC and their TCPs	Others
HK\$ 500	HK\$ 600	HK\$ 700