



Full-day workshop on Latest Design and Application of Laminated Glass

Organized by
Façade Group, Hong Kong Institute of Steel Construction

Supported by
Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University
Structural Division, The Hong Kong Institution of Engineers

Sponsored by
Kuraray Asia Pacific Pte. Ltd.

Date	: 16 March 2018
Venue	: Room Z504, The Hong Kong Polytechnic University
Time	: 8:45 am (registration) for 9:15 am to 5:45 pm

Scope and Objective

Principal feature of laminated glass is the safety performance under impact and breakage. The interlayers absorb the energy of the impact and resist penetration. Although the glass may break, the glass fragments remain firmly bonded to the interlayer, minimizing the risk of injuries. In glass skylights, canopies, sloped glazing, glass balustrade and curtain wall, there is always the possibility of glass breakage. Without laminated glass, that could mean a big safety problem caused by shattering glass.

Moreover, there is an increasing trend in the use of laminated glass in residential buildings, commercial buildings and retails. This trend is being driven by the increased desire for more open designs with less visible framing and structural supports, resulting in glazing designs that provide greater transparency and visibility. Glass laminates such as SentryGlas® ionoplast are able to fulfill the high architectural safety standards at a reduced thickness compared to glass laminates with PVB interlayer. SentryGlas® interlayer was chosen primarily for its enhanced strength compared to laminates with PVB (which allowed a 30% thinner glass construction), its post-glass breakage retention properties and its visual clarity when used in combination with low-iron vision glass.

The workshop is tailor-made for the practising building professionals comprising Authorized Persons, Registered Structural Engineers, Technically Competent Persons and Façade practitioners to attend.

Fees & Registration

Registration rates are devised, please make your reservation now.

Registration	HKISC member	HKIE member or Group of 5+	Others
	HK\$1,000	HK\$1,200	HK\$1,500

The registration includes a copy of the lecture notes, a copy of full-day CPD certificate and tea refreshments.

Should you have further query, please do not hesitate to contact Mr. Tommy LI at man@hkisc.org.

Programme

Time	Programme
8:45 am – 9:15 am	Registration
9:15 am – 9:30 am	Welcome speech
9:30 am – 10:30 am	Local Practice for the Design of Glass Pane and Laminated Glass <i>Ir Dr. Dominic Yu</i> , Principal of Alpha Consulting Limited
10:30 am – 11:00 am	Tea Break
11:00 am – 12:30 pm	20 years of transforming glass façade design – Interlayer materials of laminated glass <i>Ms. Jennifer Schneider</i> , Structural and Security Glazing Segment Manager, Kuraray Trosifol®
12:35 pm – 2:00 pm	Lunch
2:00 pm – 3:30 pm	Structural Analysis and Behaviour of Laminated Glass <i>Mr. Malvinder Singh Rooprai</i> , Kuraray Trosifol®
3:30 pm – 4:00 pm	Tea Break
4:00 pm – 5:30pm	Causes and Solution overview of the lamination process and delamination problems <i>Mr. George Zhou</i> , Greater China Technical Service Manager, Kuraray Trosifol®
5:30 pm – 5:45 pm	Q & A Collection of CPD certificates;



香港
鋼結構學會

Hong Kong Institute of
Steel Construction



DEPARTMENT OF
CIVIL AND ENVIRONMENTAL ENGINEERING
土木及環境工程學系

香港理工大學, 土木及環境工程學系
THE HONG KONG POLYTECHNIC UNIVERSITY
Department of Civil and Environmental Engineering

REGISTRATION FORM
(To be replied on or before 12 March 2018)

**Full-day workshop on
Latest Design and Application of Laminated Glass**

Please follow the 2-step registration procedure:

1. Fax the completed registration form to *Mr. Tommy LI* (Fax: 852-2334 6389) for preliminary registration.
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 Tommy LI*, at:

HKISC c/o Room ZS 972, Department of Civil and Environmental Engineering,
The Hong Kong Polytechnic University, Hunghom, Kowloon, Hong Kong.

on or before the deadline.

To: Mr Sam CHAN

Fax: 852- 2334 6389

Personal Details:

Title	Name in full (Block Letter)	Name of Company	Post	Phone Number	E-mail address	HKISC/HKIE Membership No. (if any)
1.						
2.						
3.						
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7.						
8.						

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 Fee

Registration	HKISC member	HKIE member or Group of 5+	Others
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Biography of speakers



Ir Dr. Dominic YU is a specialist in the structural design and use of glass. He is Principal (Structural Fire and Façade) of Alpha Consulting Limited, providing consultancy services on glass and facade engineering, non-linear integrated design and analysis, structural fire engineering analysis and design, steel and composite design etc. He is Part-time Lecturer in Fire Safety Engineering Programme of University of Central Lancashire & CityU SCOPE. He is also Visiting Lecturer for MSc Module of Façade Engineering in Civil Engineering Programme at the Hong Kong Polytechnic University. Before joining Alpha Consulting Limited, Dr. Yu served as a Specialist and Test Consultant of Research Engineering Development Façade Consultants Limited (RED Façade and Fire HOKLAS Testing Laboratory).

Dr. Yu obtained Doctoral Degree of Philosophy in Structural Engineering, Master Degree in Fire Safety Engineering, and Bachelor Degree in Civil Engineering. He worked as a Research Associate in the Department of Civil and Structural Engineering at the Hong Kong Polytechnic University to serve as a Technical Secretary of the consultancy study contributing to the “Code of Practice for the Structural Use of Steel 2005” and the 2011 version. He also compiled the Explanatory Materials of the Steel Code for Buildings Department. Dr. Yu is Professional Consultant for Consultancy Study of “Structural Use of Glass” for Buildings Department. He is also actively serving the industry and the university by delivering various technical seminars and lectures.



*Ms. Jennifer Schneider,
Structural and Security Glazing Segment Manager, Kuraray Trosifol®*

Jennifer Schneider has worked in the laminated glass industry for over 14 years and is currently the Structural and Security Glazing Market Manager for Kuraray. She has been involved in the development, commercialization, and marketing of new interlayers for laminated glass for both automotive and architectural applications. Jennifer has a vast degree of experience in understanding the relationship between polymer properties and laminated glass performance. She holds a MS in Plastic Engineering from the University of Massachusetts.

Her lecture will focus on SentryGlas® interlayers - 20 years of transforming glass façade design

- Developed in 1998 for the hurricane impact glazing market
- Unique structural properties provides superior strength, enabling glass to be used in innovative and unique façade designs
- SentryGlas® strength allows for thinner glass, less attachments and dry glazing for cost effective solutions



*Malvinder Singh Rooprai, M.E (Structures)
Technical Consultant (Asia Pacific Region), Kuraray India Pvt. Ltd.*

Malvinder Singh Rooprai is working for *Trosifol*® PVB division of Kuraray India Pvt. Ltd as Technical Consultant for Asia Pacific region. Kuraray acquired the Glass Laminating Solutions Business of DuPont in June 2014 and is based out of New Delhi. He works on finite element modeling of laminated glass for analyzing the effects of viscoelastic behavior of polymeric interlayers on the structural performance of laminated glass panels in architectural applications. He has provided consulting reports on structural performance of laminated glass to Architects and Façade Engineers and Structural consultants on some of the mega projects in the region like Shanghai Tower in China and World One in Mumbai – India. He has presented papers on laminated glass with SentryGlas® in events like GPD Finland, World of Facades (India) & Façade Design and Engineering Conference and presented on the same in similar events in Singapore.

He has worked as a Structural & Façade Engineer for nearly 6 years with a façade fabrication company (a subsidiary of construction giant DLF Ltd) in India. He did his Masters in Structural Engineering from Thapar University, Patiala – India and did his dissertation work on *Wind Load Modeling in Tall Rectangular Buildings including Interference effects by Artificial Neural Networks*.

His lecture will focus on Structural Analysis and Behaviour of Laminated Glass

- Various Analysis Methods
 - Empirical Formulas
 - Effective Thickness Method (Advantages & Limitations)
 - Finite Element Method
- Buckling Analysis for Laminated Glass Fins
- Bond Strength Measurements for interlayer at Elevated Temperatures.



*Mr. George Zhou
Greater China Technical Service Manager, Kuraray Trosifol®*

George Zhou has worked in the laminated glass industry for over 10 years and is currently the Technical Service Manager for Kuraray Greater China. He has another 10 years' experience in diversified fields covered Electronics and Contamination Control in DuPont. He has strong capability to trouble-shoot the complex and un-certain defects for the glazing system especially laminated safety glass using his combined technologies and experiences. George is a member of the safety glass branch committee of National Technical Committee of Auto Standardization. He holds a MS in Environmental Engineering from Shanghai Jiao Tong University.