

Summary of Decisions of the Structural Engineering Committee
SEC 09/2011 held on 13.07.2011

(a) Case 09/2011

- Issue: Titanium Inserts Connections in Glass Wall
- Recommendation: That connections consist of titanium inserts bonded by SentryGlas® Plus (SGP) for transferring wind load from facial glass panels to glass fin supports in a SGP laminated glass wall system be accepted.
- Decision: Members endorsed the recommendation subject to the following conditions:
- (a) Justification should be given on adopting ANSI Z97.1 as the Standard for the subject design. RSE should also clarify if all the provisions in the adopted standard would be complied with and provide justification if any parts of the standard would be omitted from compliance. Technical information on the material composition, specification, physical and chemical behaviour, bond strength and compatibility of SGP with the glass and titanium material together with relevant design and construction standard should be satisfactorily submitted.
 - (b) A discussion on the effect of weathering and aging on long term performance of the proposed insert connections due to condensation, high moisture content, water leakage, and salt or acid rain etc. taking into account of local condition as well as the location of the project and the disposition of the laminated glass wall should be carried out. The issue on limitation of the product should be addressed in the maintenance manual.
 - (c) Detailed construction method statements including the application of SGP to the insert connections, a quality assurance scheme and testing regime to verify the structural performance and long term durability of the inserts in the SGP laminated glass wall are to be submitted to BD for consideration prior to consent application. The reference standard adopted for testing should also be clarified. Test results should be submitted to the BD for record prior to completion of works.
 - (d) A full scale performance test to demonstrate the structural behaviour and adequacy of the glass wall system should be carried out.

- (e) Quality supervision should be provided by Registered Structural Engineer and Registered General Building Contractor to the carrying out of fabrication, installation and erection of the glass system works. All works must be done in strict compliance with the manufacturer's recommendation.