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High Reliability Glazing Solutions using Laminated Glass

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Abstract

We are currently witnessing rapid growth in the use of laminated glass in architecture globally. Much of this growth is being driven by demands for increased safety, structural, security and energy performance of facades and also by the desire for improved glazing reliability. In this contribution we will review some of the key developments that have enabled the expansion of glazing solutions that rely on laminated glass.

Specifically we consider:

- 1) Recognition of inherent performance benefits of laminated glass versus other infill materials;
- 2) Continual improvement in laminate processing technology and best practices;
- 3) Commercialization of high performance polymer interlayers with improved durability and extended structural performance;
- 4) Advances in design methodologies and associated expansion in performance information. We will show how the use of Ionoplast interlayers in conjunction with improved design methodologies have led to the design of reliable, structurally efficient glazing structures. Case studies of highly engineered laminated glazing structures will be presented to highlight key design concepts and opportunities.