

Ultra-Thin Glass Connections

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Abstract

Capitalizing on recent developments of an ultra-thin glass sculpture [1] and a pavilion [2],[3] further research was conducted on glass connections, glass cutting and lamination.

While the exploration and findings specific to the project are presented (*pending acceptance*) in a separate IASS proceedings article, this article focusses on the calibration and validation of the fabrication methods. The results documented herein include cutting with waterjet CNC equipment, laser cutter and mechanical cutting wheel testing performed in Boston in 2018 and 2019.

Support methods, materials, machine equipment and parameters are discussed. Each viable sample has been subsequently bent to rupture to assess impact of edge finish on ultimate glass strength.

References

- [1] S. Pennetier, M. Bowers, G. Evain “Shaping Ultra-Thin Glass.” Glass Performance Days Conference, Tampere (2017).
- [2] S. Pennetier, “Ultra-Thin Glass Pavilion” IASS Boston (2018).
- [3] J. Stoddard, S. Pennetier. “Scalability of Ultra-Thin Glass for Potential Architectural Application” IASS 2019 (*pending*)

