

Building and Construction

Tensegrity Glass Beams

The University of Pisa has developed a new type of glass panel beam that avoids glass fracture by creating a series of modular elements. The triangular elements are connected to each other using pre-tensioned stainless steel cables.

The structure relies on the principle of tensile integrity, or tensegrity as it is better known. Tensegrity refers to the integrity of structures that is based on the synergy between balanced tension and compression components.

All ancillary parts such as routels, studs, tie-rods and support systems for the sheets of glass are all made of stainless steel. This is for both aesthetic and durability reasons.



Location/environment | PISA, ITALY/INDOOR

Product | STAINLESS STEEL CABLE

Fabrication process

Grade/surface | EN 1.4401 (AISI 316)

Material thickness/diameter | 6 MM

Weight

Competing material

Date of completion

Manufacturer | DEPARTMENT OF STRUCTURAL ENGINEERING, UNIVERSITY OF PISA

Material supplier

Source of information | CENTRO INOX

Remarks | THE EXAMPLE PICTURED IS A PROTOTYPE.

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