

TS 2 Materials  
 11 Soho St | AHMM Architects  
 Facade Analysis



Layer and Material

The building is a typical mixed use building in the midst of a busy street providing the comfort of retail shopping and private living at the same time. It is entirely made of glass on the exterior, even the residential. The first few floors in ZARA retail store, then the offices and the top most are the residential units. The building is wrapped in a curved glass skin that is as eye catching in the grey sky as it is in the brightly lit nights.

Even though the building is mixed use, the layers in materiality do not change. The curved glass is treated with a dot pattern that blocks visibility to a certain extent and privatises the areas. The Facade comprises of two layers of the glass. both the glasses have the dots pattern in varying place so as to create a diffused facade that lets in light but blocks visibility for reasons of privacy. As it is situated in the corner, it benefits from a great amount of daylight.

Material Fabrication  
 Curved Glass

Curved glass is made of two or more layers of glass combined with polyvinyl betrayal in an autoclave for material bonding. Curved laminated glass provides safety from breakage, blocks sound transmission, blocks UV rays, and other external forces such as wind and storm, attacks, etc. In this building, it is also combined with a pattern with adds aesthetic property as well as functional property to the glass. The thickness in real life was not perceivable at day or night time because of curve nature of the glass, however, generally it varies from 13- 19mm.

Project About

11 Soho Street, a brand new building, in the midst of the very commercial oxford circus area. Designed by AHMM architects, it is inspired by the history of retail architecture combined with new fabrication techniques. The building is half retail, some parts offices, and some parts residential. This mixed use building replaces and old corner building in the hope to reinvent the surrounding appeal, while also providing a three storey ZARA store. The Building is evidently striking during day and night, both.

Abhinav Jain

Material Function and Design

Curved Laminated glass is made of polyvinyl butyral (PVB) used to bond two panes of glass under heat and pressure.

After it has sealed together, the two glass acts as a single piece but doubles the performance of the glass in every way. The U value doubles from approx 0.5 to 1 for two layers of same thickness. It adds strenght, durability and possibility to incorporate aesthetic properties such as color, tint, patterns, etc.

Calculated Results

Total Glass Weight = 900.00Kg

Glass Configuration

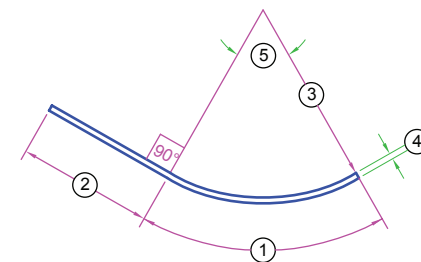
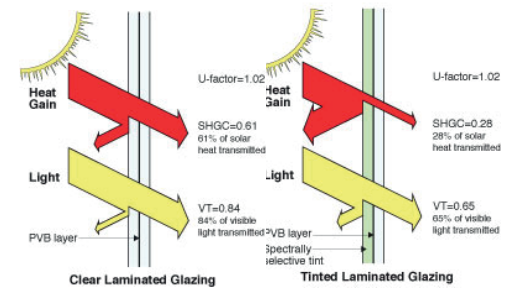
Pane 1: 11.5 mm - Laminated  
 Pane 2: 11.5 mm - Laminated

Dimensions

Width: 6.00 m  
 Height: 3.00 m  
 Area: 18.00 m<sup>2</sup>

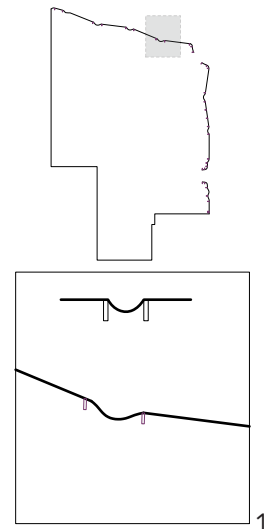
Weights:

Pane 1: 450.00Kg  
 Pane 2: 450.00Kg

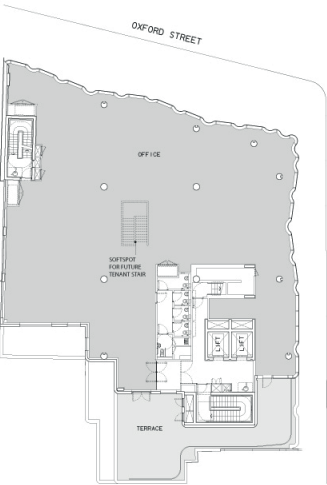
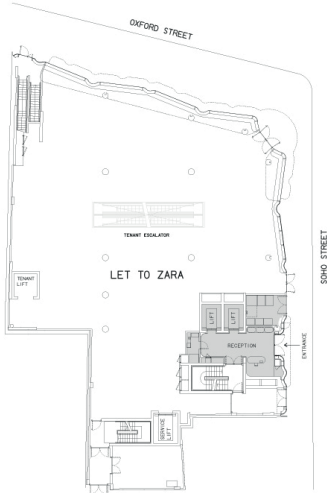


Curved Glass with Flat Tangent

1. Arc lenght
2. Flat tangent
3. Radius
4. Glass Thickness
5. Degree of Arc



Plans



Sectional Detail

Details

- 1. PVB layer that holds the two glass together
- 2. Outer Glass layer of 13mm
- 3. Inner Glass layer of 13mm
- 4. Pattern on the curved glass stuck between the two layers

