



PRODUCT PROFILE



PRODUCTION CAPABILITY

Metro Performance Glass has two Unitised Structural Glazing Lines

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INTRODUCTION:

Structural Glazing is a technique for bonding glass to frames using special silicone sealants. These systems are known as;

Two Sided Systems – Two sides of the glass pane are bonded to the frame system

Four Sided Systems – Four sides of the glass pane are bonded to the frame system

Two sided systems are often glazed and bonded on site, which is not ideal unless the environmental conditions are good and the silicone has time to cure while located in place.

Four sided systems are glazed and bonded in a factory and since the frames are manufactured and supplied in individual units, they are known as “unitised” systems.





PRODUCT PROFILE



DESIGN

- + Worldwide trend
- + Modular systems
- + High strength and durability
- + Seismically very good (as proven in CHCH quake)
- + Clean minimalist look from outside
- + A variety of glazing and cladding materials can be used
- + External fins and louvres can be fitted
- + Flush facade for easier maintenance
- + Higher quality product due to QA & factory control
- + Glass and sealant warranties are more achievable due to controlled conditions

BUILDING

- + Building doesn't require scaffolding
- + Off site fabrication and glazing
- + Frames can be delivered by A-Frames or on flat deck trucks and lifted and "clipped" on site via special location and connection brackets
- + Frames can be preloaded onto floors ready for glazing
- + Installation is normally quick and simple on site depending on access, and is not so dependent on the weather
- + Unitized is a faster build when planned right & can be a more economical outcome
- + Unitised systems include vision and spandrel panes in one unit
- + Insulation for the spandrel panes can be fitted in the factory
- + Building connections can be designed for construction tolerances
- + Can overcome delays in building programme, as fabrication continues

FABRICATION AND GLAZING

- + Factory fabrication
- + Frame units are built to agreed sizes and tight tolerances and are square and flat
- + Frame surface finishes are not exposed to the environment before glazing, and are temperature stable for sealing
- + Frames are built in a factory and supplied to a factory for glazing
- + Glazing is often done in the factory that the glass is manufactured
- + Glass products can be pre-made to agreed sizes, and do not leave the factory environment
- + Factory conditions ensure the environment is controlled in relation to temperature, humidity, dust, dirt and moisture
- + Glazing can be done during winter and or wet and humid conditions when site access is restricted
- + Glazing can be single, laminated or IGUs to suit the design
- + Sealant compatibility test are normally required
- + Sealant adhesion test are normally required
- + Cleaners, primers, tapes, bond breakers and sealants are applied under controlled conditions
- + Special "two-part" structural silicone sealants can be used with special application pumps, and these are fast curing sealants
- + Silicone bonding (bite) sizes and depths (glue line) plus weather seals are easier to set and maintain in a factory
- + Quality Assurance (QA) procedures and tests are easier to maintain in a factory
- + Large heavy units can be glazed using factory based glass sucker lifting equipment and glass can be dropped into horizontal frames
- + Factory production lines can enable units to be glazed and moved then stored and can work 24/7 if required
- + Unitized panels can be de-glazed and re glazed as part of the QA checks in the factory
- + Frames once glazed can be stacked and stored in racks ready for site delivery
- + Backed by Dow Corning Technical resource
- + Regular sealant audit by the sealant company for all jobs