

Guide to NBS Clause H13 STRUCTURAL GLASS ASSEMBLIES (Double Glazed U value 1.3 W/m²K)**TYPE(S) OF STRUCTURAL GLASS ASSEMBLY****115 STRUCTURAL GLASS ASSEMBLY****Supporting structure:** Steelwork / Glass Mullions (**Delete as Appropriate**)**Structural glass system:** Pilkington **Planar**TM Structural Glazing System**Manufacturer and reference:** Pilkington Architectural, Alexandra Works, Borough Road, St. Helens, England WA10 3WATel: 01744 692559 Email: Planar@nsg.com

Contact for Accredited Installer List-

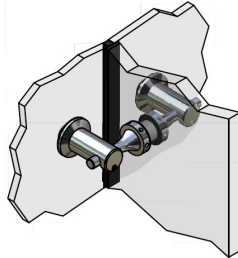
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Note: For project specific specifications please contact one of the above

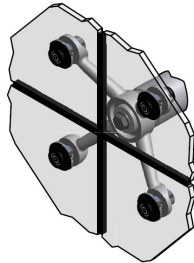
12 year Product and Engineering warranty to be provided from the system designer/manufacturer with all components sole sourced.

Type: Double glazed wall.**Assembly fixings:** (**Delete as Appropriate**)

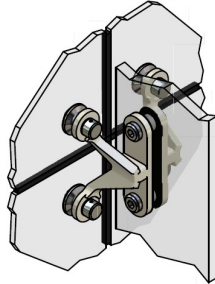
1. Countersunk Pilkington **Planar**TM 905J assemblies and spring plate brackets.



2. Countersunk Pilkington **Planar**TM 902 bolt with Nexus Casting



3. Countersunk Pilkington **Planar™** 902 bolt with Wooten St. Casting



Material: Stainless steel to BS EN 10088-1, grade 1.4401.

Finish: As Machined (Standard for 902 and 905J fittings)
Bright polished 2P to BS EN 10088-2

Assembly supports: (Delete as Appropriate)

1. Steelwork (By Others)

Material: Mild steel

Finish: Galvanized and painted or powder coated.

Or

2. Pilkington **Planar™** Glass mullions/Fins.

Material: Toughened or Toughened Laminated glass as clauses 610, 620, and 630
Thickness and Mullion/Fin depth to be determined by a Pilkington Planar™ Engineer.

Finish: Pilkington **Optifloat™** or Pilkington **Optiwhite™** (Delete as Appropriate)

Fin Connections to Structure: (Delete as Appropriate)

1. Mild Steel (with one coat of protective paint)
2. Mild Steel (Polyester Powder Coated)
3. Stainless Steel

Façade Glass: Pilkington **Planar™** single glazing with toughened/Laminated glass as clauses 610, 620 and 630.

Substrate: (Delete as Appropriate)

Outer Pane - Pilkington **Optifloat™** or Pilkington **Optiwhite™**

Cavity – 16mm Air Space (Black Spacer)

Inner Pane - Pilkington **Optitherm™** S1 Plus or Pilkington **Optitherm™** S1 plus on OW

Available Thickness Outer Pane: 10mm, 12mm, 15mm or 19mm

Available Thickness Inner Pane: 6mm, 13.5mm (Laminated)

Thickness to be determined by a Pilkington Planar™ Engineer.

Glass to glass jointing:

Silicone to be one of the Pilkington **Planar™** approved/tested products (Available on request)

Nominal joint width: 12 mm.

Performance Requirements: (Add as required)

Minimum Light Transmission: XX%

G Value: 0.XX

U Value: 1.3 W/m²K

0.25 mm edge dip.

620 HEAT TOUGHENED GLASS:

- To BS EN 12150.
- To BS EN 12600:2002, Class 1.
- All edgework and holes must be completed before toughening.
- The toughening process must be horizontal to eliminate tong marks and minimize dimensional inaccuracies.
- All toughened glass must be subjected to a heat soaking test to BS EN 14179, designed to remove 90% of nickel sulfide inclusions which may otherwise cause spontaneous breakage in situ. (Minimum 8 Hours at temperature)

630 LAMINATED GLASS:

- Glass leaves must be heat toughened as clause 620, heat strengthened or annealed, combined to retain integrity of the laminated pane in case of breakage.
- Interlayers to glass leaves must be polyvinyl butyral (pvb) or SentryGlas (sgp).

640 INSULATING DOUBLE GLAZED UNITS:

- To BS EN 1279.
- Colour of aluminium perimeter spacers: [_____]
- Unit perimeter seals must be compatible with glass joint sealant.
- Assembly fixings must be hermetically sealed through units.
- Fabricate units to transfer loads safely from both glass panes to assembly fixings.
- Any perimeter taping must be transparent to permit inspection of unit edge condition.

650 STAINLESS STEEL ASSEMBLY FIXINGS:

- Castings and machined fittings: To BS EN 10088-1, grade 1.4401 (BS 1449:Part 2, grade 316)
- Plate and strip: To BS EN 10088-2, grade 1.4401 (BS 1449:Part 2, grade 316).
- Bars, rods and sections: To BS EN 10088-3, grade 1.4401 (BS 1449:Part 2, grade 316).
- Fasteners: Austenitic stainless steel to BS EN ISO 3506-1:2009, grade A4.

FABRICATION AND INSTALLATION

WORKMANSHIP GENERALLY:

Fabricate and install structural glass assemblies in accordance with specified requirements. Fabricators and installers must employ competent structural glass assembly operatives. Provide records of their experience to the CA on request. Machine cut and drill all glass, assembly fixings and assembly supports in the workshop. Site drill or cut into structure only in approved locations.