**HERITAGE DOUBLE GLAZED ROOF PATENT GLAZING SPECIFICATION**

**Amend the text shown in red type as necessary. Drop down lists are incorporated into this Word document to aid this task. This feature will only work on versions of Microsoft Word 2007 and later.**

**H10 PATENT GLAZING**

TYPE(S) OF PATENT GLAZING

115 PATENT GLAZING
- **Drawing reference(s):** Insert relevant drawing numbers here
- **Supporting structure:** top -SELECT TYPE HERE
 intermediate -SELECT TYPE HERE
 bottom -SELECT TYPE HERE
- **Patent Glazing system:** To BS 5516, with performance criteria as specified in this section.
- **Manufacturer and reference:** The Standard Patent Glazing Company Ltd, Flagship House, Forge Lane, Dewsbury, West Yorkshire, WF12 9EL. Tel :01924 461213 www.patent-glazing.com
- **Type:** 2 EDGE SUPPORTED PATENT GLAZING SYSTEM
- **Glazing bar:** ‘HERITAGE’ LC type glazing bar.
- **Material:** rolled mild steel inner cores with minimum tensile strength of 355 N/mm². Galvanised finished and covered with twin winged seamless lead extrusion with soldered ends to create a hermetic seal.
- **Finish: Glazing bars to be self finish (lead covered) and any aluminium accessories to be polyester powder coated to BS 6496.**- **Colour/texture: aluminium accessories to be coated to RAL 7015 slate grey matt finish to match lead covers.**- **Minimum film thickness:** 40 micrometres for any polyester powder coated sections
**- Glazing Bar** s**pacing:** as shown on Architects drawings or approx. 600mm centres.
**- Roof** **Slope:** SELECT VALUE HERE
- **Bottom overhang/lap:** as recommended by The Standard Patent Glazing Co. Ltd
- **Pane/infilling material(s):** 30mm thick double glazed units with centre pane of at least 1.15W/m²K.
OUTER PANE: SELECT VALUE HERE
CAVITY: 18mm Argon gas filled cavity with warm edge spacer bars
INNER PANE: SELECT VALUE HERE
- **Incorporated components:** SELECT TYPE HERE
**- Opening Vents: Type-** SELECT TYPE HERE
**- Opening Vents: Quantity -** SELECT QUANTITY HERE
**- Opening Vents: Opening Mechanism** -SELECT TYPE HERE
**- Opening Vents: Control Devices** - SELECT TYPE HERE

 **GENERAL REQUIREMENTS**

211 DESIGN:
- Complete detailed design of the patent glazing in accordance with BS 5516 and the requirements of this specification.
- Coordinate detailed design with that for all related works.
- Submit detailed design to the CA before commencement of patent glazing work.

221 PRODUCT SAMPLES: Before commencing detailed design provide the CA with identified samples of glazing bar if requested and obtain approval of appearance before proceeding.

231 SAMPLES OF FIXINGS: When submitting detailed design, provide the CA with identified samples of each type of fixing, with details of methods of adjustment and tolerances if requested.

**DESIGN/PERFORMANCE REQUIREMENTS**
311 GENERALLY: Performance requirements specified in this section apply to the entire patent glazing assembly, including flashings and junctions with adjacent parts of the building. Full allowance must be made for deflections and other movements.

321 VERIFICATION OF PERFORMANCE: Submit reports and calculations to the CA before commencement of patent glazing work. Reports and calculations must be based on approved laboratory testing or computer modelling.

331 INTEGRITY: Calculate size(s) and spacing(s) of glazing bars, thickness of glazing/infilling, types and locations of fixings and other structural requirements in accordance with BS 5516 and CP 3:Chapter V:Part 2 (making due allowance for any internal pressure) to ensure that the patent glazing will resist all dead loads and design live loads, and accommodate all deflections and thermal movements without damage.
- Basic wind speed (V): m/s - to be determined from site post code.
- Topography factor (S1): - to be determined from site post code.
- Ground roughness, building size and height factor (S2):
Determine from CP 3:Chapter V:Part 2, Table 3.
- Statistical factor (S3): 1.
- Snow load: Determine from BS 6399:Part 3.
- Permanent imposed loads: none

341 FIRE RESISTANCE OF PATENT GLAZING: To BS 476: Part 22

345 SURFACE SPREAD OF FLAME OF PATENT GLAZING:
To BS 476:part 7:
Internal: Class 1
External Class 1

351 AIR PERMEABILITY: Permissible air leakage rates of 1.5m³/hr/m² for fixed glazing/infilling and 2.0 m³/hr/lin.m for opening lights must not be exceeded when the patent glazing is tested in accordance with Centre for Window and Cladding Technology, Test methods for curtain walling, section 4 to a peak positive pressure of …………… Pascal’s.

361 WATER PENETRATION onto internal surfaces or into cavities not designed to be wetted must not occur when the patent glazing is tested in accordance with Centre for Window and Cladding Technology, Test methods for curtain walling, section 5 to a peak positive pressure of ……… Pascal’s.

381 CONDENSATION must not form on the internal surfaces of framing members of glazing/infilling in the following conditions:
External air temperature: -4oC
Internal air temperature: +21oC
Internal relative humidity: 55%.

391 SOLAR CONTROL: Glazing units must have:
- A shading coefficient of not more than 0.7 for clear double glazed units.
- Average light transmission of not less than 78% of average daylight for clear double glazed units.

401 THERMAL SAFETY: Glazing units must have adequate resistance to thermal stress generated by orientation, shading, solar control and construction.

411 SOUND REDUCTION of the patent glazing must be not less than 31dB for noise at a frequency of …….Hz.

421 SECURITY: Patent glazing bars to have externally fixed caps/wings with non-removable fasteners if required.

**FABRICATION AND INSTALLATION**510 WORKMANSHIP GENERALLY:
- To BS 5516.
- All fixings must be concealed unless indicated on detailed drawings.
- Machine cut and drill all components in the workshop wherever possible.
- Site drill or cut into structure only in approved locations.

520 GLASS:
- To BS 952 generally, free from bubbles, cracks, rippling, dimples and other defects. Panes to be accurately sized with clean, undisfigured and undamaged edges and surfaces.
- Insulating glass units to BS 5713, hermetically sealed and Kitemark certified.

550 INFILLING must be:
- Accurately sized with undisfigured and undamaged edges and surfaces.
- Adequately rigid to comply with all design/performance requirements.

560 SUITABILITY OF STRUCTURE: During the site survey of the supporting building structure, check line, level and fixing points. Report immediately to the CA if the structure is unsuitable to received the patent glazing.

570 PROTECTION AND FINAL CLEANING:
- Remove any cement and plaster based spillage whilst wet.
- Prevent staining, scratching and other disfigurement of the patent glazing during installation and by following trades.
- At Practical Completion or when otherwise agreed with the CA, remove any protective coverings and thoroughly clean external and internal surfaces with mild detergent solutions approved by the patent glazing manufacturer.