

# IBG SPECIFICATIONS

## PART I: GENERAL

### 1.1 SCOPE

A. This section includes everything necessary for and incidental to the execution and completion of skylight work as shown on drawings and specified herein.

B. Work includes:

1. Design, fabrication and erection of skylight framing, and glazing, required to make a complete and watertight installation.
2. Complete Engineering Drawings.

C. Work not included under this Section of Specifications:

1. Structural steel framing
2. Supporting curbs
3. Grouting, wood blocking
4. Washing or polishing of glazing panels
5. Flashing, through wall flashing, reglets
6. Electrical work or hook up
7. Final Cleaning
8. Other (as required by Architect)

### 1.2 QUALIFICATIONS

A. The skylight(s) shall be extruded aluminum IBG (custom skylight, multiple grid skylight, barrel vault, dome system or passageway – architect specify) as manufactured and installed by IBG Canada Ltd.

Substitute manufacturers shall not be considered unless they have been approved in writing not later than ten days prior to bid date. Only those manufacturers whose product is in strict conformity with this Section of the Specifications and with the Contract Drawing details will be considered for approval as a substitute manufacturer. Requests for approval must be accompanied by complete details and specifications along with photographs of at least (3) three successful skylighting enclosures of equal size and type to that specified herein.

### 1.3 LOADING REQUIREMENTS

A. Aluminum framing components shall be designed to support the following loads:

1. Live Load of \_\_\_kg./sq. m. (downward)
2. Wind Load of \_\_\_kg./sq. m. (horizontal)
3. Negative Pressure of \_\_\_kg./sq. m. normal to surface.)
4. Load Combinations:
  - Live + Dead
  - Wind + Dead
  - (Live + Wind + Dead)/1.33
  - Negative Pressure – Dead
5. Maximum allowable deflection of framing components supporting glass shall be  $L/___$ .

### 1.4 GUARANTEE

The skylight(s) and all appurtenant items supplied under this section shall be guaranteed against leakage, defective materials and construction for a period of one (1) year after completion of the skylight(s). This guarantee is limited to replacement or repair of materials supplied and does not include consequential damage.

## PART 2: PRODUCTS

### 2.1 MATERIALS

A. ALUMINUM

All aluminum framing components shall be

extruded and shall have minimum mechanical properties equal to or greater than 6063-T6 alloy and temper. Sheet aluminum shall be of the required alloy and temper to make it compatible with the specified finish. All exterior caps shall have a minimum effective thickness of .125". The actual alloy, temper and gauge used, however, shall be contingent upon the physical performance required to satisfy the requirements of:

1. Loading and deflection.
2. Cross sectional configuration.
3. Finish.

B. FLASHING

All aluminum flashing (where required) shall be of a sufficient gauge and chemical composition to satisfy the conditions as described in Paragraph (A) above with a minimum thickness of 1.0 mm (For painted finishes 2.5 mm)

C. FINISH

Architect to specify.

D. FASTENERS

All external fasteners exposed to view shall be stainless steel and shall receive an integral color coating to match the finish on the adjacent aluminum. Fasteners not exposed to view shall be a cadmium plated steel.

E. Clamping bars shall be attached to glazing bars by 6 mm – 20 stainless steel machine screws.

F. GLAZING – (architect to specify based on local safety codes and specific building mechanical and esthetic requirements).

G. Gasketing located above and below the glazing panel shall be continuous neoprene or EPDM. Resistance to deterioration by sunlight, weathering, oxidation and to permanent deformation under load are prime essentials. (If RSP is desired delete below and add – seal below the glass shall be pre-shimmed butyl type wet seal to ensure continuous, positive seal between aluminum and glazing components under all conditions).

H. Sealants used in conjunction with all skylight construction and between skylight components and perimeter construction shall be a one-part silicone sealant.

I. (Optional) All skylight construction shall incorporate a continuous thermalbreak isolating the exterior aluminum clamping bars from the interior aluminum framing components.

J. (Optional) All skylight construction shall incorporate IBG Canada Ltd.'s RSP (Rain Screen Principle).

### 2.2 CONSTRUCTION

A. The skylight(s) shall be of the geometry indicated on the Contract Drawings.

B. Rafter and purlin components shall be extruded aluminum.

C. Aluminum clamping bars shall be attached to the glazing bar members through the use of stainless steel machine screws spaced a maximum of 228.6 mm o.c.

D. Any required welding shall be by the heliarc process.

E. (DomeSystem only) All primary structural

members shall be aluminum components. Those primary structural members shall be connected at the vertices by means of flush aluminum extrusion.

F. (DomeSystem only) it is intended that the connector casting incorporate four projecting arms which shall engage with the structural members. These arms shall sleeve inside the tubular members in a tight friction fit. All exterior fastening devices such as clips, lugs, gussets and bolts shall be unacceptable.

## PART 3: EXECUTION

### 3.1 INSTALLATION, GENERAL

A. All structural elements to which the skylight must attach shall maintain the following tolerances:

1. All plan dimensions shall be held to a  $\pm 12$  mm non-cumulative tolerance during construction to allow for proper adaption of the aluminum framing system.

All vertical dimensions shall be held to a  $\pm 12$  mm non-cumulative tolerance and all elevations shall be held to a  $\pm 6$  mm tolerance during construction to allow for proper adaption of the aluminum framing system.

B. Skylight manufacturer to examine all surfaces prior to the start of installation. All deviations from the approved shop skylight drawings are to be brought to the attention of the General Contractor at once. Corrective measures shall be made by the General Contractor.

C. To prevent electrolysis, aluminum components that come into contact with dissimilar materials shall receive one coat of asphaltic emulsion paint or zinc chromate.

D. Erection of the skylight system is to be completed by the manufacturer or an approved agent. Only specialized mechanics having at least two years experience in this type of work shall be employed in the erection of the skylights.

## PART 4: DISCLAIMER

IBG Canada reserves the right to make changes to their standard specifications as conditions warrant.

