

SECTION 07810 PLASTIC SKYLIGHTS

Model DDPO, Curb Mounted Opening Skylight

PART 1: GENERAL

1.01 DESCRIPTION:

A. Scope:

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

B. Work Included:

Work included, and is limited to, the skylight materials only and includes the following:

1. Domed plastic skylights complete with curb frame (for mounting on flashed curbs by others) and (single) (double), glazed 100% acrylic dome(s). Curb frames to have integral counter-flashing.

C. Related Work:

1. Section _____ roofing.
2. Section _____ flashing & sheet metal.
3. Section _____ final cleaning.

1.02 DESIGN CRITERIA:

A. Structural Criteria:

Plastic skylights must comply with the requirements of ASTM-330 "Method of Tests for Structural Performance", Uniform Building Codes (UBC 5207, 2305), which require acrylic thickness adequate to yield a minimum live load rating of 20 PSF.

Positive test pressures of 65 and 80 PSF on 1/8" and 3/16" acrylic thickness yields live load ratings of 27.4 and 21.5 respectively.

Manufacturers Association (AAMA) publication "Voluntary Uniform Load Structural Standard for Plastic Domed Skylights" (AAMA 1606-82) which requires acrylic thickness adequate to withstand a positive and negative test pressure of 60 PSF.

B. Moisture Control:

1. Skylights shall have integral condensation gutter and weep holes for draining

any moisture to outside.

2. Skylights shall utilize manufacturers standard closed-cell, UV-stabilized polyethylene tape between retainer and domes to prevent air and water infiltration.
3. Double dome skylights shall utilize a butyl seal to prevent moisture and dust accumulation between domes.

1.03 SUBMITTALS:

A. Shop Drawings:

Submit _copies of manufacturer's standard approval sheet for architect's review and approval.

PART 2: PRODUCTS

2.01 MANUFACTURER:

- A. Standard Aluminum skylights with a PVC vinyl inner base frame shall be a Tam Skylight, Model DDPO, as manufactured by Tam Industries, Inc. (1-800-SKY-LITE), size as shown on the drawings. Substitute manufacturers shall not be considered without prior approval in writing no later than ten calendar days prior to the bid.

2.02 MATERIALS:

- A. Aluminum retaining frame to be fabricated from 6063-T5 aluminum extrusion having a minimum thickness of .060". Corners shall be welded with TIG process to insure leak-proof quality.
- B. Inner frame to be fabricated from U.V. stabilized PVC vinyl, with built in condensation gutter and mitered corners being fusion welded to insure a leak-proof quality.
- C. 100% cell cast acrylic dome(s) shall be clear, (clear/clear) and shall be held in place by a fully welded extruded aluminum-retaining frame with aluminum rivets.
- D. Aluminum finish to be dark bronze anodized.
- E. Glazing strips, shall be a closed-cell, UV-stabilized polyethylene tape, that meets or exceeds AAMA 810.1 specifications.

2.03 FABRICATION:

- A. Skylight shall be factory assembled.

B. All welding of aluminum shall be by the TIG process.

PART 3: EXECUTION:

3.01 INSPECTION:

A. Prior to starting installation, the skylight installer shall inspect the supporting curbs for squareness, and that the curb is water-tight. Report in writing, any deficiencies in the substrate. Work shall not proceed until all deficiencies are corrected.

3.02 PREPERATION:

A. Tops of curbs shall have a closed-cell weather gasket tape, available through Tam, to form a watertight seal between the skylight curb frame and curbing.

3.03 INSTALLATION:

A. The skylight installer shall show proof of having satisfactorily installed projects of a similar type. The installer shall be acceptable to the material manufacturer and shall work strictly in accordance with the manufacturer's installation instructions.