ProLine Heavy Glass Hinge Specifications

A. HINGE

1. Hinge body shall be solid forged brass.
2. Standard finishes to include:
   Polished Chrome

   Brushed Nickel

   Oil Rubbed Bronze
3. “Mickey Mouse” style glass cut-outs to reduce the chance of slippage.
4. Rounded corners with bevel edges or square corners with square edges.
5. Industrial grade pistons and springs rated for 40,000 to 50,000 opening cycles.
6. Accomodates 3/8” or 1/2” glass.
7. Self Centering Hinge.
8. Full or small back plates available. Full back plate is standard.
9. Wall mount screws provided are #10 x 2” stainless steel or brass.
10. Maximim sizes and Limitations:

Glass Thickness	Hinges	Max. Sq. Inches	Max Width
3/8" (10mm)	2 Std. Hinges	2304	28
3/8" (10mm)	3 Std. Hinges	3456	32
3/8" (10mm)	2 Hd. Hinges	3168	36
3/8" (10mm)	3 Hd. Hinges	4032	36
1/2" (12mm)	2 Std. Hinges	1772	28
1/2" (12mm)	3 Std. Hinges	2658	32
1/2" (12mm)	2 Hd. Hinges	2436	36
1/2" (12mm)	3 Hd. Hinges	3101	36

- Maximum weight 40 lbs. per hinge for the standard hinge.
- Maximum weight 55 lbs. per hinge for the heavy duty hinge
- When a door is hinged from a side panel and the side panel is glazed with channel the unit shall require a header over the door and panel.

- When a door is hinged from a side panel and the side panel is attached with clips, the side panel shall be attached with clips at the top and the bottom or it shall require a header over the side panel and the door.

- If a door is hinged from a side panel, the side panel width must be at least 25% the width of the door panel.

- Doors hinged from side panels glazed on two sides only are disallowed unless the side panel is attached with clips or channel at the top and bottom.

B. HARDWARE AND EXTRUDED ALUMINUM ACCESSORIES

1. Alloy and Temper: Extruded aluminum shall be 6463-T6 alloy per ASTM B 221. This alloy is designed to accept a bright finish after anodizing. Used for decorative trim applications, machineable, polished, and anodized - also heat treatable.

MECHANICAL PROPERTIES OF 6463-T6 (a)					
Thickness in inches	**Tensile Strength - ksi**				**Elongation percent**
(b)	**Ultimate**		**Yield**		**min. in 2 in.**
	min.	**max.**	**min.**	**max.**	**or 4D**
Up thru 0.124	30	..	25.0	..	8
0.125 - 1.000	30	..	25.0	..	10

a. Hardness of 6463-T6 on Rockwell B scale: 20-50.

b. T6 temper designates a material that is thermally treated to produce stable tempers then solution heat treated and artificially aged. For complete temper designation consult technical publications ANSI 35.1 or the Aluminum Association publication, Aluminum Standards and Data.

c. The thickness of the cross-section from which the tension test specimen is taken determines the applicable mechanical properties. The data base and criteria upon which these mechanical property limits are established are outlined in the Aluminum Association publication Aluminum Standards and Data (ASD) Section 6, "Mechanical Properties".

2. Metal Gauge: The nominal wall thickness of individual aluminum extruded components for this unit varies with structural needs.

Component	**Description**	**Nominal Wall Thickness**
SC-644	Curb & Header	.094"/.344”
SC-646	Header	.94”/.344”

3. Tolerances: Tolerances on all aluminum extruded components shall comply with Aluminum Association requirements unless otherwise specified.

4. Hardware: All hardware accessory parts used in conjunction with hinges shall be of aluminum, stainless steel, or other corrosion resistant material(s) compatible with aluminum. Cadmium or zinc-plated parts, where used, shall be in compliance with ASTM A 164-71 or 165-74. Nickel or chrome-plated parts, where used, shall be in compliance with ASTM B 456.71, SC2. Stainless material should have a preference of a 310 alloy with a 410 alternative.

    a. Fastners to follow International Fasteners Institute standard B18.6.3 for Slotted and Recessed Head Machine Screws and Metallic Drive Screws or B18.6.4 for Slotted and Recessed head Tapping Screws and Metallic Drive Screws.

5. Glazing Materials: All glazing materials to be safety tempered glass with a nominal thickness of .375" for door panels or other safety glazing materials to conform to Federal Standard CPSC 16 CFR 1201 Category 1 and 2, Safety Standard for Architectural Glazing Materials. Dimensional tolerances shall conform to ASTM C 1036-85 and ASTM C 1048-85.

6. Finish Specifications (Anodized): The finish on anodized aluminum components shall conform to the following Aluminum Association Specifications:

    a. Silver: AA-M21-C31-A21 for buffed, clear, bright anodized aluminum.

    b. Gold: AA-M21-C31-A23 for buffed, colored, bright anodized aluminum.

    c. Brushed Nickel: AA-M35-C31-A23 for brushed, colored, bright anodized aluminum.

    d. Satin: AA-M10-C22-A21 for etched, clear, anodized aluminum.

    Anodized aluminum components are tested or inspected for thickness of anodic coating (.00015" min.\.00030" max.), color range variation, and integrity of the anodic seal.

    NOTE: The finished surface of anodized aluminum parts can be damaged by harsh cleansers. In particular, glass cleaners or other cleaning products with a PH of less than 7 or more than 9 can damage the anodized finish with prolonged exposure.

7. Finish Specifications (Painted)

    Painted components shall conform to AAMA 603.8, Voluntary Performance Requirements and Test Procedures For Pigmented Organic Coatings On Extruded Aluminum.

    a. Powder coating shall conform to Aluminum Association standard AA-M10-C40-R1X.

    Material used is polyurethane powder coating.

TYPICAL PROPERTIES OF DesignLine POWDER COATING		
Property	**ASTM Method**	
Specific Gravity, PCI #4	---	1.2 – 1.9
Gloss	D523	5 – 95+
Pencil Hardness	---	H – 2H
Impact	D2794	To 160 Inch lbs
Mandrel Bend	D522	1/8 Inch
Cross Hatch Adhesion	D5339	Excellent
MFK resistance, PCI #8	---	50 Double Rubs
Abrasion resistance	D1044	Good
Salt Spray	D8117	500 Hrs. Min
Film Thickness	D1186	1.0 – 4.0 Mils