ALUMAX
BATH ENCLOSURES
by Sapa

692/694 Specifications

A. UNIT FEATURES

1. Pivot jambs shall have continuous vinyl seal.
2. Door panels shall have continuous aluminum deflector with vinyl wiper blade at the bottom of the door panel. Installation of the deflector is by double-sided foam tape.
3. Vinyl wiper position is adjustable for precise fit to curb.
4. Frame to be adjustable for precise fit to wall conditions. Wall jamb adjustment is plus 1/2" from nominal.
5. Latch to be permanently mounted magnetic strips.
6. Side or return panels to be pre-framed and glazed for modular installation.
7. Door panels to be pre-framed and glazed for modular installation.
8. Detailed instruction sheets and cross sections with custom unit fabrication formulas.
9. 24 hour product information and support via the **Alumax Bath Enclosures Website** (*www.alumaxbath.com*).

B. UNIT VALIDITY

1. Wet test: All joints, seams, and seals are tested and evaluated for leaks in a wet test module.
2. Mechanical test: Moving parts or components subject to wear are cycle tested to simulate 20 years of use.
3. Artificial aging: Plastic components are selectively tested by artificial aging. This process subjects the parts to ultraviolet light, heat, and humidity to test the resistance of the material to these conditions.
4. Quality is assured by various in house verification procedures.

C. MATERIALS AND CONSTRUCTION

1. Size Limitations:

   Maximum allowable height of units 72” tall

   692 - Maximum allowable unit size 48" x 48"
   694 - Maximum allowable unit size 36" x 36" x 36"

2. 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 (b)					
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".

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

Component	Description	Nominal Wall Thickness
SC-563	Bottom Rail	.050"
SC-612	Deflector	.055"
67735	Pivot Rail	050”
67736	Panel Rail	.050”
67737	Hinge and Strike Jamb	.050”
67738	Panel Side Rail	.055"
67739	Wall Jamb	.055"
67740	Handle Rail	.070"
67741	Curb and Header	.050"
67742	Side Panel Curb & Head	.050"
67897	692 Strike & Pivot Jamb	.055"
67898	692 Corner Post	.062"

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

5. Hardware: All hardware parts that are incorporated in the product 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. Fasteners 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.

   b. Pivot Pin – Stainless Steel ASTM A276 TY 302 Passivated.

c. MECHANICAL PROPERTIES OF 692/694 DUAL DUROMETER VERTICAL SEAL (Flexible Component) & DRIP VINYL Plasticized, filled with Shore A Durometer Hardness of 65	
Tensile Break Strength	1100 psi
Ultimate Elongation	360%
Specific Gravity 23/23 C	1.39
Shore "A" Hardness Initial @ 10 sec.	65 61
Brittleness Point, F 50% Failure @	-33

d. 692/694 DUAL DUROMETER VINYLS AND SEALS Mechanical Properties of Rigid Component			
Property	**ASTM Method**	**Units**	
Specific Gravity	D792	---	1.34
Hardness Durometer D	D2240	---	85
Rockwell R	D785	---	107
Tensile Strength	D638	psi	6,350
Flexural Strength	D790	psi	12,400
Izod Impact, 1/8” Notched	D256	ft lb/in	15
Optical Clarity – Transmittance Haze (.65 mil)	D1003	% %	74 5
All data obtained at 73 deg. F from injection molded Test specimens prepared per ASTM D647 and D1897			

e. DOUBLE STICK DRIP RAIL & CURB ATTACHMENT TAPE Mechanical Properties	
ADHESIVE	
Shelf Life	2 years (stored at 75 deg. F and 50% relative humidity out of direct sunlight in closed package)
Application Temp. Range	65 deg. F – 120 deg. F
General Service Temp. range	0 deg. F – 150 deg. F
Static Shear	15 lbs/in sq.
180 Peel Adhesion	128 ounces/inch width
Tensile	50 lbs/in sq.
Shear Adhesion (1000g/in sq.)	No creep @ 500+ hours
FOAM BASE	
Foam Density	6#
Water Absorption per ASTM D-1667	0.04 (lbs/ft sq.)
Elongation per ASTM D-1564	323-395 (% to break)
Strength per ASTM D-1564	180-220 (lbs/in sq.)

6. Glazing Vinyls: Vinyls and other glazing seal materials shall be of material compatible with aluminum, be resistant to water and common household chemicals and shall create a water-tight seal between the glass and its surrounding frame.

a. MECHANICAL PROPERTIES OF 692/694 GLAZING VINYL Plasticized, filled with Shore A Durometer Hardness of 60	
Tensile Break Strength	920 psi
Ultimate Elongation	600%
Specific Gravity 23/23 C	1.28
Shore "A" Hardness Initial @ 10 sec.	61 58
Brittleness Point, F 50% Failure @	-6

7. Glazing Materials: All glazing materials to be safety tempered glass with a nominal thickness of .156" on obscure or clear 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.

8. 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.

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.