ALUMAX
BATH ENCLOSURES
by Sapa

1040/1050 Specifications

A. UNIT FEATURES

1. Fully adjustable, sealed, heavy duty ball bearing rollers. Up and down adjustment of panels is plus or minus .156".
2. Safety tee-lock wall jamb to header connection.
3. Pocketed wall jambs for superior leak prevention.
4. Tub track attached with double-stick tape or caulk.
5. Transparent molded panel guide for inconspicuous control of sliding panels.
6. Clear molded peel-and-stick jamb bumpers.
7. (Optional) anti-jump header insert
8. Architectural grade acrylic towel bars with machined aluminum fastening system finished to match unit. **Towel bars are not to be used as grab bars.**
9. Reversible round header design.
10. Available in tub (1040) and shower height (1050).
11. Return panel and neo angle panel kits available.
12. Detailed instruction sheets and cross sections with custom unit fabrication formulas.
13. 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: 1040/1050 units *shall not* exceed 32 5/8 square feet or 4702 square inches of glass, total. This restriction provides for the following maximum unit sizes:

Maximum allowable width of unit = 66" (@ 71 ¼" tall)

Maximum allowable height of unit = 78-3/8" (@ 60" wide)

Deflection of header on maximum sized unit with 3/8" glass = .113".

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-631	Panel Top Rail	.094"
SC-625	Wall Jambs	.062"
SC-623	Header	.078"
SC-624	Tub Track	.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.

c. 1" Roller Bearings: Maximum load (1 bearings) – 80lb., Estimated life of bearing 30,000 cycles minimum.

c. CENTER GUIDE Mechanical Properties of Base Material			
Property	**ASTM Method**	**Units**	
Specific Gravity	D792	---	1.20
Hardness	D785	R scale	75
Tensile Strength at yield	D638	psi	3,000
Flexural Strength at yield	D790	psi	4,400
Izod Impact at 73° F, Notched	D256	ft lb/in	8.3
Deformation under load at 1000 psi	D621	%	2
Water absorption 24 hr immersion	D570	%	1.9

d. T-LOCK, JAMB COVER			
Property	**ASTM Method**	**Units**	
Tensile Strength	D638	psi	16,500
Elongation @ break	D638	%	15
Elongation @ yield	D638	psi	4
Flexural Modulus at 73° F	D790	psi	470,000
Izod Impact at 73° F, Notched	D256	ft lb/in	1
Deformation under load at 2000 psi	D621	%	1.4

e. ACRYLIC TOWEL BAR Mechanical Properties of Base Material			
Property	**ASTM Method**	**Units**	
Specific Gravity	D792	---	1.17 – 1.20
Water Absorption @24 hrs. 1/8" Thick	D750	%	0.03 – 0.4
Tensile Strength	D638 & D651	psi	8,000 – 11,000
Flexural Strength	D790	psi	12,000 – 17,000
Izod Impact Notched ½" x ½" bar	D256	ft. lb/in	0.4 – 0.5
Hardness	D785	Rockwell	M80 – M100
Effect of Sunlight	---	Very Slight	
Effect of Organic Solvents	D543	Soluble in ketones, esters, and aromatic chlorinated hydrocarbons. Resistant to alcohol at room temp.	
Effect of Weak Acids	D543	Practically nil	
Effect of Strong Acids	D543	Attacked only by oxidizing acids and H_2SO_4	
Effect of Weak Alkalines	D543	Practically nil	
Effect of Strong Alkalines	D543	Attacked	

f. DOUBLE STICK 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.)

g. CLEAR ADHESIVE BACK BUMPER Mechanical Properties		
Property	**ASTM Method**	
Hardness Shore “A”	D2240	70 – 80
Resilience	D2632	3 – 6%
Abrasion	C-501-66	0,13g/1,000 cycles
Tensile	D412 Die A	740
Elongation	D412 Die A	65%
Solvent Resistance	5% Detergent in water	No Apparent Effect
	25% Ammonia in water	No Apparent Effect
BUMPER ADHESIVE		
Static Shear (3M Test Method) 70° F 120° F 158° F		 Excellent Excellent Excellent
Impact Resistance (3M Test Method) Low Surface Energy High Surface Energy		 Poor Good
Dynamic Shear (3M Test Method) Low Surface Energy High Surface Energy		 Excellent Excellent

6. 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.

7. 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.

8. 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 1040/1050 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