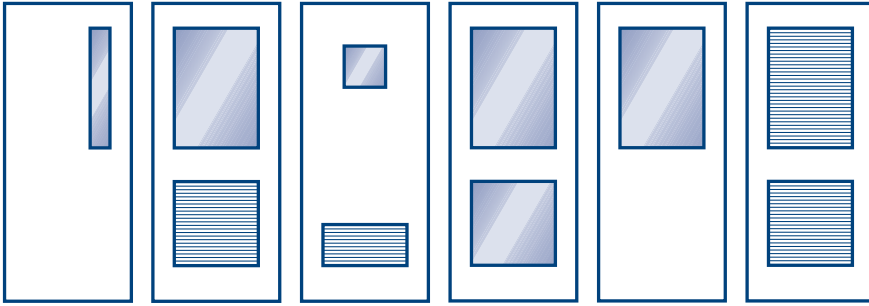


Aluminum and FRP

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Custom Aluminum Doors and Frames Since 1961



*Flush Doors
Aluminum and FRP*



Stile & Rail Doors



*Commercial
Screen Doors*

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Custom Aluminum Doors and Frames Since 1961

Aluminum Door Classification and Construction Specifications

Series 100BE Aluminum Flush Doors

Put the Power of 5-Ply in Your Flush Door Specifications

Aluminum heavy-duty doors shall be Cline Series 100BE. Doors shall have a thickness of 1.75-inches (44.45mm) and be of minimum 5-ply construction with composite skin thickness of 0.125-inch (3.18mm). Exterior door ply shall be of one-piece 0.040-inch (1.02mm) smooth 5005-H14 stretcher-leveled aluminum alloy facing. Facings shall be commercially bonded edge-to-edge to one-piece oil-tempered hardboard. Core shall be a minimum 5-pound EPS Foam, prestabilized, free of chlorofluorocarbon (CFC)/Hydro chlorofluorocarbons (HCFC), bilaterally bonded to composite structure facings. Internal hardware back-up shall be full perimeter aluminum tube, 4.25-inches (107.95mm) in width with 0.125-inch (3.18mm) minimum wall thickness bonded to 0.085-inch (2.16mm) oil-tempered hardboard. Door edges and face sheets shall be flush in appearance; face sheets shall be trimmed with replaceable extruded aluminum reglets of 6063-T5 alloy on perimeter edges. Lock stile shall have aluminum beveled-edge and wool-pile weather stripping. Beads and trim wall thickness shall be 0.050-inch (1.27mm). Nominal door sizes shall be provided. Standard clearances shall be: hinge and lock stiles, 0.125-inch (3.18mm); between meeting stiles, 0.250-inch (6.35mm); at top rails, 0.125-inch (3.18mm); and between door bottom and threshold, 0.125-inch (3.18mm). Bonding agents shall meet EPA requirements. Exterior face sheet option of 0.040-inch (1.02mm) vertically ribbed embossed pattern to be specified.

Series 200BE FRP Flush Doors

Tomorrow's School Door is Here Today

Aluminum-member heavy-duty FRP doors shall be Cline Series 200BE-FRP. Doors shall be a minimum thickness of 1.75-inches (44.45mm) and a minimum 5-ply construction with a FRP composite skin thickness of 0.125-inch (3.18mm). Door facing shall be a composite, UV inhibited, glass fiber laminate (FRP) with a pebble-like embossed pattern. Reinforced polyester plastic panels shall meet or exceed allowances per ASTM D3841. FRP face sheets shall have a Class-A fire rating with a smoke generation of no greater than 450 and a flame spread of no greater than 25. Core shall be a minimum 5-pound EPS Foam, prestabilized, free of chlorofluorocarbon (CFC)/Hydro chlorofluorocarbons (HCFC), bilaterally bonded to composite structure facings. Internal hardware back-up shall be a full perimeter aluminum tube, 4.25-inches (107.95mm) in width with 0.125-inch (3.18mm) minimum wall thickness. Internal framing members shall be mechanically joined with an extruded aluminum tenon corner bracket. Door edges and face sheets shall be flush in appearance; face sheets shall be trimmed with replaceable extruded aluminum reglets of 6063-T5 alloy on perimeter edges. Lock stile shall have aluminum square-edge and wool-pile weather stripping. Hinge stile to be prepared for standard template 4.5-inch x 4.5-inch butt hinge. Beads and trim wall thickness shall be minimum thickness of 0.050-inch (1.27mm). Bonding agents shall meet EPA requirements. Nominal door sizes shall be provided. Standard clearances shall be: hinge and lock stiles, 0.125-inch (3.18mm); between meeting stiles on pairs, 0.250-inch (6.35mm); at top rails, 0.125-inch (3.18mm); and between door bottom and threshold, 0.125-inch (3.18mm).

Exterior FRP face sheet option of Cline stocked FRP colors or custom colors and finishes to be specified.

Series 400SE Screen Doors

Free Flow Ventilation Surrounded by Tubular Strength

Heavy-duty screen doors shall be Cline Series 400SE. Doors shall be constructed as a tubular, stile and rail door with the stile and rail tubes having a depth of 1.75-inches (44.45 mm), a width of 4-inches (101.6 mm) and a 0.095-inch (2.41 mm) minimum wall thickness. Top, bottom and center rails shall be joined to the hinge and lock stiles with mechanically fastened extruded aluminum twist plates. Doors shall have an extruded aluminum mid-rail tube located at Cline's standard lock height consisting of a singular tube having a depth of 1.75-inches (44.45 mm), a height of 5-inches (127 mm) and a 0.125-inch (3.18 mm) minimum wall thickness. The bottom kick-panel shall consist of double stacked extruded aluminum tubes having a depth of 1.75-inches (44.45 mm), a combined height of 10-inches (254 mm) and a 0.125-inch (3.18 mm) minimum wall thickness. All exposed fasteners shall be 18-8 stainless steel. All exposed aluminum extrusion shall be of 6063-T5 extruded aluminum alloy. Nominal door sizes shall be provided. Standard clearances: hinge and lock stiles 0.125-inch (3.18 mm); between meeting stiles 0.250-inch (6.35 mm); at top rails 0.125-inch (3.18 mm); and between door bottom and threshold 0.125-inch (3.18 mm).

Series 500SE Stile and Rail Doors

Flexibility Through Design

Aluminum heavy-duty stile and rail doors shall be Cline Series 500SE. Doors shall have a thickness of 1.75-inches (44.45mm) x 5-inch (127mm) 6063-T5 aluminum alloy with 0.125-inch (3.18mm) minimum wall thickness and shall be fabricated with 0.375-inch (9.53mm) plated steel through-bolts in rails. Lock stile shall have integral bevel edge of 0.125-inch (3.18mm) over 2-inches (50.8mm) with a wool pile weatherstrip seal. All exposed fasteners shall be 18-8 stainless steel.



Half Glass Bottom Louver



Classroom Vision Lite



Screen Door



Full Louver

Finishing Methods and Material Descriptions

Glazing

Vision lites shall be glazed with 0.25-inch (6mm) thick tempered glass with snap-in, non-removable stops of extruded aluminum 6063-T5, minimum thickness of 0.050-inch (1.27mm) Vinyl inserts shall be used for sealing. No exposed fasteners. Glazing option of 1-inch (25.4mm) and 0.5625-inch (14.29mm) thick tempered glass to be specified.

Screen

Door screens shall be 18x16 mesh 0.011-inch (0.28mm) diameter alclad aluminum insect screening set in a 0.050-inch (1.27mm) extruded screen frame. Expanded aluminum grill shall be mounted behind lower screen.

Louvers

Frames and blades of louvers shall be 6063-T5 aluminum alloy with a minimum 0.062-inch (1.58mm) thickness. Louver blades shall be inverted "Y" type with minimum 50 percent free air flow. All exposed fasteners to be stainless steel. Insect screen shall be 18x16 mesh, 0.011-inch (0.28mm) diameter alclad aluminum set in a 0.050-inch (1.27mm) extruded frame.

Panels

Panels shall have a thickness of 1.75-inches (44.45mm) and a minimum 5-ply construction with composite skin thickness of 0.165-inch (4.19mm). Exterior door ply shall be of one piece 0.040-inch (1.02mm) smooth 5005-H14 stretcher-leveled aluminum alloy facing. Facings shall be commercially bonded edge-to-edge to oil-tempered hardboard the full width of doors. Core shall be a minimum 5-pound EPS Foam, prestabilized, free of chlorofluorocarbon (CFC)/Hydro chlorofluorocarbons (HCFC), bilaterally bonded to composite structure facings. Bonding agents shall meet EPA requirements. Exterior face sheet option of 0.040-inch (1.02mm) vertically ribbed embossed pattern to be specified.

Hardware Preparation

Doors shall be prepped per manufacturer's approved shop drawings. Standard preparation shall include 4.5-inch x 4.5-inch (114.3mm) template, full mortise hinge prep, single spindle lock prep, mortise lock edge prep only, and flushbolt prep for pairs. Surface applied hardware shall be drilled and tapped in field by installer. *Additional hardware preparation to be specified. Concealed hardware and pivot hinges are not recommended or supported by manufacturer.*

Finish

Aluminum doors shall be anodized in accordance with Aluminum Association AAM12C22A31, Class II, Clear 0.4 mil (0.01mm) minimum thickness. Exposed aluminum surfaces on FRP doors shall be anodized in accordance with Aluminum Association AAM12C22A41, Class I, clear 0.7 mil (0.02mm) minimum thickness.

Optional Finishes

Class I Anodized 0.7 mil (0.02mm) minimum thickness: Clear; Light, Medium and Dark Bronze, and Black – AAMA 605.2 High Performance Organic Coatings: Kynar-based paint – AAMA 603.8 Pigmented Organic Coatings: Polycron.

Series 200BE FRP – Exclusive Features

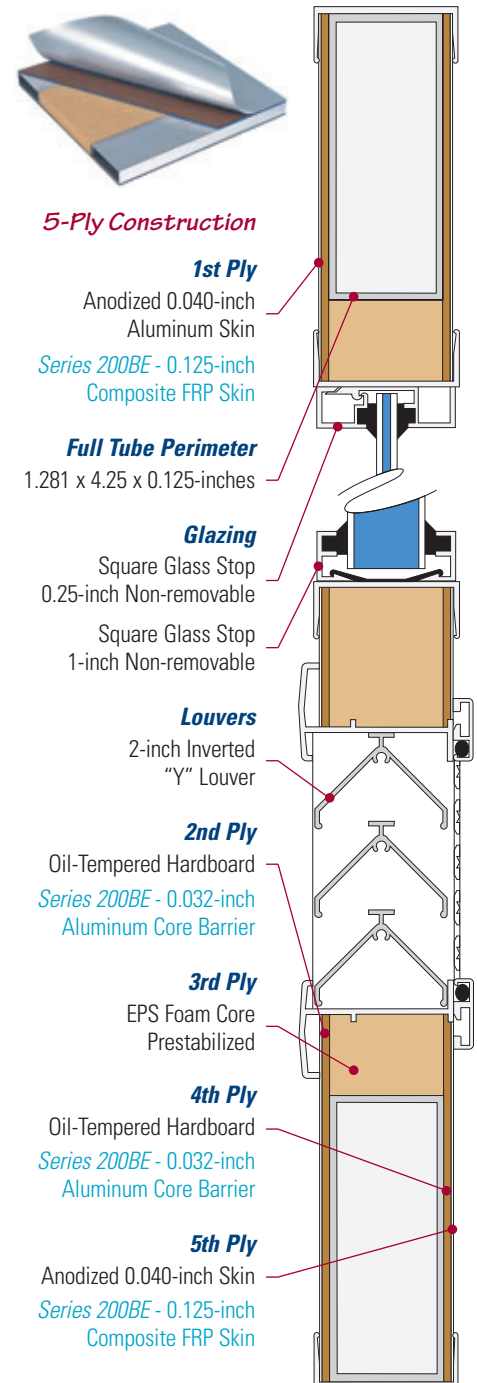
5-Ply Laminated Construction – Multiple laminated layers of structural materials have always proven to be substantially stronger than a single monolithic structure.

FRP Skin – Kal-Lite has developed a specially formulated FRP outer panel exclusively for Cline Doors per Cline's specifications. The Series 200BE FRP door skins, interior and exterior sides of the door, have a "Class A" fire rating and are UV inhibited. Custom colors are available.

Replaceable Door Rims – The lock style of the 200BE FRP flush door is mechanically fastened and is replaceable if damaged during shipping, installation, attempted forced entry or through normal usage.

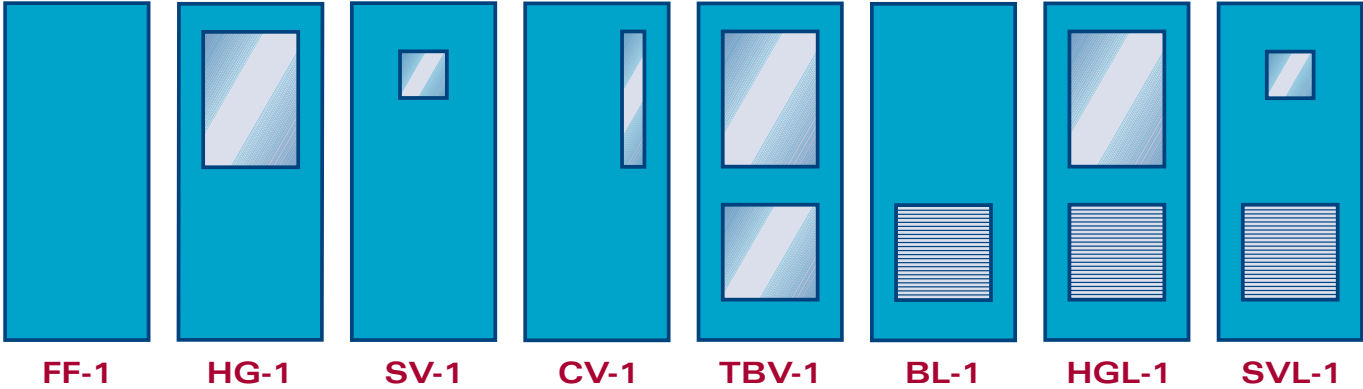


*Aluminum and FRP Door
Typical Cross-Section*



Custom Aluminum Doors and Frames Since 1961

Standard Door Elevations



Anodized Finishes

Series 100BE, 200BE and 500SE

AAMA 611.92 – Integral color anodic finishes. Architectural priorities for most commercial and industrial purposes are best served with anodized finishes which provide a durable, maintenance-free finish on aluminum products.

Cline Aluminum Doors has selected clear Class II and dark bronze Class I as finish standards based upon uniformity of color characteristics. Other available Aluminum Association finish designations are included on the chart to the right.

Finish	Class I Coating	Class II Coating
Clear	AAM12C22A41 215	AAM12C22A31 204
Lt. Bronze	AAM12C22A44 442	AAM12C22A34 342
Med. Bronze	AAM12C22A44 443	AAM12C22A34 343
Dk. Bronze	AAM12C22A44 444	AAM12C22A34 344
Black	AAM12C22A44 446	AAM12C22A34 346

Aluminum Door Frames

Construction Specifications

Aluminum heavy-duty frames shall be Cline 5-inch OBS. Frames shall be constructed of 5-inch (127mm) extruded aluminum 6063-T5 alloy with a minimum wall thickness of 0.125-inch (3.18mm). Corners shall be cut square and fastened using concealed stainless steel screws. Snap-in door stop shall be 0.1875-inch (4.76mm) extruded aluminum bar stock. Frame option of Cline 6-inch (152.39mm) frame to be specified.

Hardware Preparation

Hinge and strike plates shall be fully mortised in frame. Hinges shall be prepped for standard weight 4.5-inch x 4.5-inch (114.3mm) template hinge. Lock strikes shall be 4.875-inch (123.84mm) in accordance with ANSI standards A115.1 or A115.2. All surface applied hardware shall be drilled and tapped in the field by installer. Special hardware preparation available upon request.

Finish

Frames shall be anodized in accordance with Aluminum Association Class II AAM12C22A31, Clear 0.4 mil (0.01mm) minimum thickness. Class I and other distinctive finishes available.



Warranty

Cline Aluminum Doors, Inc. warrants the workmanship and material in Cline doors with Cline standard hardware preparation, excluding finishes and hardware, for a period of ten (10) years when installed properly and used under normal conditions. Cline reserves the right to repair or replace doors. Complete warranty available upon request.



Specify Cline – Call today for your project quote!

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