

## A

**Active Door (or Leaf)** - Usually the first operating leaf in a door having a pair of leaves; the leaf to which the latching or locking mechanism is attached.

**Addendum** - A document that is added to a contract to amend it or is in addition to the main body of the contract.

**Adjustable Astragal** - An integral component with weatherstripping located within the inactive meeting stile on pairs of doors which can be adjusted to close the clearance gap for weathering purposes.

**Air Leakage** - The volume of air which flows through a closed window or door in a given length of time as a result of the difference in air pressure on its opposite faces.

**AIA** - American Institute of Architects.

**Allowable Stress** - The maximum unit stress permitted under working loads by codes and specifications.

**Alloy** - A composition of two or more metals fused together to obtain a desired property.

**Aluminum Door** - A door having aluminum stiles and rails; usually glazed.

**AAMA** - American Architectural Manufacturers Association is a trade association of firms engaged in the manufacture and sale of architectural building components and related products.

**ANSI** - American National Standards Institute is an independent association of trade organizations, technical societies, professional groups and consumer organizations which establishes and publishes standards at the national level.

**Anchor** - Any device used to secure a building part or component to adjoining construction or to a supporting member. Also see Floor Anchor and Jamb Anchor.

**Anodic Coating** - The surface finish resulting from anodizing. Coatings may be produced by clear, integral color or electrolytically deposited color processes. Also see Anodize.

**Anodize** - A method of coating, coloring and finishing aluminum that both protects and beautifies the aluminum.

**Anneal** - To soften a metal piece and remove internal stresses by heating the piece to its critical temperature and allowing it to cool very slowly.

**Anti-Walk Blocks** - See edge blocks.

Apron - The finished board placed against the wall surface immediately below a window stool.

Architect's Scale - A scale having graduations along its edges so that scale drawings can be measured directly in feet (or meters); usually triangular in shape.

Armored Faceplate - Tamper-proof faceplate or front of a lock mortised in the edge of a door to cover the lock mechanism.

ASCE - American Society of Civil Engineers.

ASHRAE - American Society of Heating, Refrigeration and Air Conditioning Engineers.

ASTM - American Society for Testing and Materials. A nonprofit organization that establishes standard tests and specifications for construction materials; such tests and specifications usually are referred to by the abbreviation ASTM followed by a numerical designation.

Atrium - A large lobby with galleries at each floor level on three or more sides.

Automatic Operator - Power-operated door activating device and control, actuated by approaching traffic or remote switch.

## **B**

Back Check - A resistance to cushion and slow down the opening swing of a door before reaching the closer swing limit.

Back Member - A composite vertical or horizontal mullion consisting of two or more aluminum extrusions. The interior portion is the back member or gutter and the extreme exterior portion is the face cover. Some systems have an intermediate pressure plate which holds the glass secure against the back member with fasteners. The face cover then snaps over the pressure plate to conceal the fasteners. Also see Pressure Plate.

Backer Rod - A round compressible material, either open or closed cell, placed into voids between materials to insulate and allow a backing for the application of sealant. Backer rod is available in multiple diameters. Also see Sealant Backing.

Backset - Door Backset - Dimension from the face plane of door to the face plane of frame.

Flush Bolt Backset - The distance from the outside of the face plate to the inside surface of mounting tabs.

Hinge Backset - Depth of hinge leaf that is mortised into door stile or door jamb.

Lock Backset - Distance from the edge of the locking stile to the centerline of the cylinder, measured parallel to the face of the door.

Back Stop - A mechanical feature of a door closer which completely stops the opening swing of a door at a pre-set position.

Baffle - A material used in aluminum storefronts, fixed horizontal ribbon windows and curtain walls to impede the flow of water or air into the framing system through weep slots.

Barrier Free - The elimination of barriers or obstructions to permit ready access to and through entrance doors to physically challenged individuals using wheelchairs, crutches, walkers, etc.

Bearing Wall - A wall that supports loads in addition to its own weight.

Billet - A cylindrical shaped section of aluminum alloy used as the starting stock in an extrusion.

Bite - Distance by which the inner edge of the aluminum frame glazing pocket or stop overlaps the glass.

Bituminous Paint - A low cost paint containing asphalt or coal tar used to isolate aluminum from mortar, concrete or masonry.

BOCA National Codes - A series of performance-oriented model codes responsive to the latest advancements in construction technology. Building Officials and Code Administrators (BOCA) International, Inc. was founded in 1915. Area of influence: Northeast portion of the U.S.

Bond Breaker - A release type of material used to prevent adhesion of the sealant to the back-up material.

Bottom Arm - The arm mechanism attached to the bottom rail of a door and connecting to the spindle of a floor closer or pivot.

Bond - The joining together of building materials to ensure solidity.

Brake Metal Shape - Aluminum sheet stock bent or "broken" to desired shape, as required by specific job conditions, on a power or manual press brake. This shape is often used to cover conditions which cannot be covered by a stock extruded aluminum shape.

Bridge - Each aluminum extrusion profile being used as a thermally broken framing member has an integral channel shaped cavity designed into it for receiving and holding poured polyurethane thermal break material during the filling process. After the polyurethane has cured, the aluminum bridge web connecting the exterior and interior portions of the extruded thermal break cavity is removed by either milling or sawing. Also see Debridging and Struct-Link™.

BTU - British Thermal Unit.

Bulkhead - The bottom member of an entrance frame which forms a base for a sidelight next to the door.

Bull Nose - Convex rounding of a member, such as an extruded aluminum snap-on radius face cover used on aluminum curtain walls.

Butyl - A synthetic rubber formed by the co-polymerization of isobutylene with isoprene. It is used as a sealant and as an architectural glazing tape.

Butt - Abbreviation for butt hinge, which is a hinge designed for application to the edge of a door consisting of two rectangular metal plates joined together with a pin.

Butt Hung Door - A door hung on butt hinges.

Butt Joint - A meeting of two members squarely.

## C

Cantilever - A beam, girder or truss overhanging one or more supports.

Caulk or Calk - To fill cracks and crevices, chiefly along the intersection of wood or metal to masonry, using a non-hardening putty-like compound often applied from a pressure gun.

Center Hung Door - A door hung on center pivots.

Center Pivot - Swing hardware having its pivot axis on the thickness centerline of the door and normally located about 23/4" from the hinge jamb.

Chamfer - To bevel a sharp external edge. A beveled edge.

Change Order - A document used in construction to request and/or authorize the change of material specification or other items involved in construction.

Column - A structural vertical compression member. Usually long and slender as a post or pillar.

Compatibility - The ability of two or more materials to exist in a close and permanent association for an indefinite period with no adverse effect of one on the other.

Compression Gasket - A method of securing the glass into the aluminum frame glazing pocket by using a soft gasket on one side of the glass and a firm, dense gasket called a wedge on the other. Also see Wedge Glazing.

CRF- Condensation Resistance Factor is a rating number obtained under standard test conditions which allows a prediction, within reasonable accuracy, of the ability of a window, door or glazed wall to resist the formation of condensation on interior surfaces. (Higher CRF value indicates better performance.)

Coordinator - A mechanism which controls the order of closing on a pair of swing doors. It is used with doors equipped with overlapping astragals and certain panic hardware which requires one door to close ahead of the other.

Cope - To notch an aluminum framing member such as a channel, etc. so that another member may be fitted against it.

Coped Joint - A joint between two aluminum framing members where one extrusion is cut to the profile of the second.

Corner Bracket - A bracket which is connected to a door frame jamb and head at the upper hinge corner to support an exposed overhead door closer. Used only on out-swinging doors.

Corner Post - A glass-holding mullion which connects two plates of glass at an angle forming a corner.

Counterbore - To enlarge a hole to a given depth.

Countersink - To form a depression to fit the conic head of a screw or the thickness of a plate so that the face will be level with the surface.

Cover Plate - A finish plate used to cover the exposed face of a floor closer not covered by the threshold; also, a plate used to cover the exposed face of a closer mounted in the head of a door frame or a section of threshold over a floor closer.

Crash Bar - The cross bar of a panic exit device serving as a push bar to actuate the panic hardware on entrance doors.

Crash Bar Housing - The housing at either end of a crash bar which is mounted on the surface of a door.

Crazing - Minute cracks in a surface or coating caused by force bending a material, such as aluminum, beyond the recommended minimum radius.

CSI - Construction Specifications Institute.

Curing - The process of allowing sealants to dry and harden over a given period of time.

Curtain Wall (Aluminum) - An exterior building wall which carries no roof or floor loads and consists of a combination of aluminum, glass and other surfacing materials supported by the aluminum framework.

Cylinder - The cylindrical mechanism has a keyhole which receives the key used to operate a locking mechanism. There are two basic types of cylinders:

Mortise type - has a threaded surface for screwing it directly into a lock case and has a cam on the interior end which engages the lock mechanism.

Rim type - is mounted on the surface of a door with screws from the reverse side. It is mounted independently of the lock and engages with the lock mechanism by means of a tail piece or metal extension.

Cylinder Cam - Usually refers to the flat metal plate on the end of a mortise type cylinder which actuates the lock mechanism when rotated by the key.

Cylinder Guard - Hardened protective shield designed to prevent unlawful entry by forcefully twisting and removing the cylinder.

Cylinder Ring - Spacing collar to accommodate longer cylinders.

## **D**

Deadload - A static applied load. A load without movement.

Debridging - The process whereby the aluminum bridge web connecting the exterior and interior portions of the extruded thermal break cavity is removed either by milling or sawing after the polyurethane has cured.

Deflection - The measure of movement of a member from its static position when subjected to loads.

Division Bar - Lightweight extruded aluminum framing sections used vertically or horizontally for small fixed horizontal window units. A division bar consists of a face member which has an extruded spline with threads for receiving exposed fasteners inserted through the back member which has holes drilled in it. The back and face members are screwed together after the glazing infill is installed to form the composite section.

**Dogging Device** - A device used to lock the crash bar on a panic exit device in the open position.

**Door Clearance** - The margin of clearance around the edge of a door, between door and frame.

**Door Closer** - A device or mechanism to control a door during its opening and closing cycle; may be overhead or floor mounted and either exposed or concealed.

**Door Frame** - An assembly of members, consisting of jambs and a header, into which a door or doors fit when closed. The door frame may also include transom lights and adjacent sidelights. Also see Threshold.

**Door Holder** - A hardware device designed to limit the swing of a door and hold it in an open position.

**Door Jamb** - One of two vertical members of a door frame. The hinge jamb is the jamb to which the hinges or pivots are mounted; the lock jamb is the jamb at the leading edge of the door where a lock bolt may be engaged.

**Door Light** - The glass area in a door.

**Door Opening** - The opening dimension of a doorway is measured from inside of jambs and from floor line to underside of frame header. The opening size is usually the nominal door size and is equal to the actual door size plus clearances and threshold height.

**Door Size (actual)** - The actual width and height of the swing door leaf.

**Door Size (nominal)** - See Door Opening.

**Door Stop** - a) A moulding or projecting element on a door frame which overlaps the edge of a door causing it to stop in its closed position. b) A bumper mounted on the floor or wall to limit the extent of the door opening. c) An accessory feature of a door holder serving to limit the swing of a door.

**Double Acting Door** - A door equipped with hardware which permits it to swing in both directions from the plane of its frame.

**Drip Mold** - An exterior molding (extrusion or brake shape) contoured for controlling or deflecting dripping water.

**Dry Glazing** - A method of securing glass in a frame that uses pre-formed resilient gaskets instead of a wet sealant or glazing compound.

**Durometer** - An instrument with a blunt probe used to measure the hardness of elastomeric glazing gaskets and setting blocks on a scale of 0 to 100. Also see Shore A.

## E

**Edge Blocks** - Short lengths of elastomeric materials located at one or both sides of a glass light to limit lateral movement (“walking”) caused by horizontal expansion/contraction, minimal building sway or other factors.

**Edge Clearance** - The dimension between the edge of the glass or panel and its surrounding frame which is measured in the plane of the glass or panel.

**Edge Cover** - The dimension by which the inner edge of the frame or stop overlaps the edge of the glass or panel.

**Egress** - Exit or way out.

**Elasticity** - The condition or property of being elastic; flexibility.

**Elastomeric Material** - A term often used for rubber and polymers that have properties similar to those of rubber. Thermal break polymers having the elastic properties of natural rubber.

**Electrolysis** - Chemical decomposition of a metal surface by the action of dissimilar metals and moisture.

**Emergency Release** - A safety device other than panic hardware which permits egress through an entrance door under emergency conditions.

**Entrance** - The doorway, vestibule or lobby through which one enters a building.

**E.P.D.M.** - (Ethylene Propylene Diene Monomer) is a type of elastomeric material which has excellent resistance to ozone, sunlight, and severe weather conditions and is ideal for outdoor service. E.P.D.M. is commonly used for pre-formed glazing gaskets.

**Exterior Glazing** - A method in which glass is secured in an opening from the exterior of the building.

**Extrudability** - This term is used to compare the relative resistance of different alloys and/or shapes to deformation in the extrusion process and is usually based on pressure required and attainable extrusion speed.

**Extrudability Limits** - A set of guidelines established by the Aluminum Association which provides limits on the producibility of extrusions. Dimensional tolerances, gap-width ratios, extrusion factor and circumscribing circle are examples of these limits.

**Extruded Aluminum Shapes** - There are three basic types of extruded shapes:

Solid Extrusion - Any extruded shape other than a hollow or semi-hollow shape.

Semi-Hollow Extrusion - An extruded shape where any part of the cross section partially encloses a void. The area of the void bears a fixed ratio to the square of the gap as shown in published tables developed by the Aluminum Association.

Hollow Extrusion - An extruded shape, any part of whose cross section completely encloses a void. Hollows are divided into three classes as defined by criteria established and published by the Aluminum Association.

Extrusion - The metal fabricating process by which a heated aluminum billet is forced to flow through a hole in a steel die of the desired shape. Also see Extrusion Press.

Extrusion Circle Size - This is represented by the diameter of the smallest circle that will completely enclose the aluminum extrusion. For a die with two or more holes, the diameter of the smallest circle that will enclose all the holes in the die is designated as the layout circle. Also see Extrusion Side Wall Clearance.

Extrusion Die - A steel plate or forging having a hole of the desired extrusion shape through which the aluminum is forced to flow. The die is specially machined to control the flow of metal.

Extrusion Die Support Tools - These include the steel die ring, die backer, bolster and sub-bolster and have the purpose of supporting the die against the very high pressures of extrusion and transferring these forces to the head of the press.

Extrusion Factor - The numeral representing the term "Extrusion Factor" is the ratio of the perimeter of an aluminum extrusion to its weight per foot. It is a measure of the complexity of an extruded shape and is on the die drawing. Thin wall sections have high "FACTOR" numbers and are more difficult to extrude. A solid round section has the lowest "FACTOR" and would require less extrusion pressure than a more complicated shape with a high "FACTOR" but an equivalent weight per foot.

Extrusion Press - A hydraulic press used for forcing heated aluminum ingots (billets) through a hole in a steel die of the desired shape.

Extrusion Pressure - The pressure available for aluminum extrusion is determined by dividing the press capacity in pounds by the cross-sectional area of the bore of the container in square inches.

Extrusion Ratio - This is determined by dividing the cross-sectional area of the bore of the container by the sum of the cross-sectional areas of the holes in the die. It is the measure of the deformation required to reduce the aluminum billet size to the extrusion size.

Extrusion Side Wall Clearance - One-half the difference between the container diameter and the layout circle. This clearance is necessary to avoid feed-in of the liquated outer surface of the extrusion billet or of the skull that may adhere to the wall of the container.

Greater side wall clearances are specified for extrusions with very critical surface requirements. Also see Extrusion Circle Size.

## **F**

**Fabricate** - To cut, punch and subassemble members.

**Facade** - The exterior face of a building, especially the principal face.

**Face Clearance** - The dimension measured between the face plane of a light of glass or panel and the nearest face of its retaining frame or stop.

**Face Cover** - The exterior snap-on cover used with composite type mullions (mullions consisting of two or more extrusions). Also see Back Member and Pressure Plate.

**Fasten** - To mechanically attach components together with fasteners such as screws, bolts, pins, nails, hooks, etc.

**Fenestration** - The arrangement and proportion of window and door openings in a building.

**Finger Guard** - A closure strip of soft material such as rubber or plastic, which is applied at the edge of a door or to the pivot jamb adjacent to a door, to prevent damage to hands or fingers inserted between door and frame.

**Finish Hardware** - Exposed hardware such as hinges, pivots, locks, etc., that has a finished appearance as well as a function used with doors and windows.

**Flat Filler** - An extrusion which snap fits into a mating vertical or horizontal member to provide a continuous flat surface.

**Floor Anchor** - A metal device attached to the back of a door frame jamb at its base for securing the frame to the floor. It may be either fixed or adjustable in height.

**Floor Closer** - A door closing device which is installed in a recess in the floor below the door to regulate the opening and closing swing of a door.

**Floor Pivot** - A center or offset pivot which is located at the floor or threshold of entrance doors.

**Flush Bolt** - A rod or bolt which is mounted flush with the edge or the face of the inactive door of a pair for locking the door to the frame at head and/or sill. A flush bolt mounted in the edge is operated by means of a recessed lever.

Flush Door - A paneled door in which the panels are finished flush with the rails and stiles in one or both faces.

Flush Glazing - Glazing in which glass is set in a recess in the aluminum frame; stops are also recessed; the glazing is flush with the frame surface. These systems are also called "pocket glazed" and "center glazed".

Framing - An assembly of structural aluminum extrusions consisting of a jamb, vertical mullion, intermediate horizontal, header and sill which are fitted together to form a structure into which glass or other infill material is installed.

## **G**

Glass Stop - A glazing bead which is either applied to or is an integral part of the aluminum framing system.

Glaze - To install glass lights or infill material.

Glazing - The act of furnishing or fitting with glass.

Glazing Bead - A light member applied to a frame or door stile or rail to hold glass or infill in a fixed position.

Glazing Gasket - A preformed elastomeric or plastic material applied between the face of the glass and the glazing pocket of the framing to seal and secure glass into frames by a dry glazing method without using compounds or tapes.

Glazing Pocket - The recessed channel in aluminum framing systems designed to receive glazing infills. Also known as a Glazing Reglet.

Glazing Pocket Filler - An aluminum extrusion which snap fits or slides into the glazing pocket to provide a continuous flat surface.

Guard Bar - A protective bar applied to the lower portions of a door or sidelight to prevent accidental contact with glass.

Guard Rail - A railing for separation and control of traffic passing in opposite directions through automatically operated doors.

Gutter - See Back Member.

## **H**

Hairline Joint - The fine line of contact between abutting members with the maximum joint width limited to 1/64”.

Hardware for the Physically Challenged - Hardware designed specifically to accommodate the needs of the physically challenged and to provide for ease of operation and accessibility.

Hand of Door - The designation for describing the direction a door swings. Visualize your back to the hinge or pivot jamb. If the door swings right, it is a right-handed door. If the door swings left, it is a left-handed door.

Head or Header - The horizontal frame member which forms the top of a frame.

Hinge - A hardware device consisting of two rectangular plates joined together by a pin which supports the door and connects it to its frame, thus enabling it to swing open or closed.

Hinge Reinforcement (Back Up Plate) - A metal plate attached to the door and/or door frame to receive a hinge.

Hinge Stile - The vertical structural member of a door to which the hinges are attached and about which the door pivots.

Hip - The intersection between two sloping surfaces forming an exterior angle.

Hold-Back Feature - A mechanism on a latch for entrance doors which serves to hold the latchbolt in a retracted position.

## **I**

“I” Value (Moment of Inertia) - “I” is a numerical value which describes the area of the cross section of a member about the neutral axis perpendicular to the loads. “I” values determine the deflection characteristics of a member. (Members with higher “I” values deflect less than members with lower “I” values.)

Inactive Door or Leaf - The last door of a pair of doors to be released when unlocking, usually the one not equipped with a primary lock.

Incompatibility - Adverse reaction.

Infill - Various materials glazed into a framing system.

Interior Glazing - A method in which glass is secured in an opening from the interior of the building.

Insulating Glass - An integral glass unit made up of two or three individual lights of glass separated by an air space.

Insulation - Material that has the ability to reduce heat or cold transmission.

Intermediate Butt Hinge - A butt hinge located between the top and bottom hinges on a door.

Intermediate Pivot - A jamb mounted alignment and/or reinforcing offset pivot located between the top and bottom offset pivots on a door.

## **J**

Jamb - The end vertical member of an aluminum framing system which terminates at the intersection of a wall. It is often referred to as a wall jamb.

Jamb Anchor - A metal device inserted in the back of a metal frame to anchor the frame to the wall. A masonry anchor is used in a masonry wall and a stud anchor in a wall built with wood or metal studs.

Joint Design - The design of a void to be filled with sealants to prevent air or water leakage.

## **K**

Keeper - See Strike.

Kerf - The channel or groove cut by a saw or other tool.

Keyed-Alike Cylinders - Cylinders operated by the same key. (Not to be confused with master-keyed cylinders.)

Keyed-Different Cylinders - Cylinders requiring individual keys for their operation.

Keyway - The keyhole of a cylinder lock.

Kick Plate - A plate applied to the face on the bottom of a door or sidelight to protect against abrasion or impact loads or to maintain sight lines.

Knee Brace - A brace used to prevent angular movement.

Knob - A round handle for actuating a locking or latching device.

K.D. - An abbreviation for "Knocked Down".

Knuckle - The parts of a butt hinge which enclose the hinge pin.

## **L**

Laminated Glass - A sandwich of two or more lights of glass bonded together with resilient plastic interlayers.

Latch Lock - See Lock.

Leaf - An individual door used either as a single or in multiples (leaves).

Level - The condition of perfect horizontal alignment.

Lever Handle - A bar-like grip which is rotated about an axis at one of its ends to operate a locking or latching device.

Light - Term for a pane or finished piece of glass. Also see Lite.

Lintel - A horizontal structural member that spans an opening at the head to carry the weight of construction above the opening.

Lite - Same as Light.

Liveload - Loads from non-permanent parts of the building (window washing and glazing rigs are liveloads).

Lock - Dead lock: A lock in which a bolt is moved by means of a key or thumb turn and is positively stopped in its projected position.

Latch: A mechanism having a spring-activated beveled latch bolt but no locking device. Retraction of the latch bolt is by lever handle or knob.

Dead latch: A latch bolt having an auxiliary feature which prevents its retraction by end pressure when in a projected position.

Dead lock and latch: A hardware item containing both a deadbolt and latch bolt.

Lock Face Plate - The exposed plate set on the edge of a door to cover a locking mechanism.

Louvers - Metal slats, either movable or fixed; as in a door fitted with horizontal slats for admitting air and light and for shedding rain.

Low E Glass - Low emissivity glass; a type of reflective glass used to reduce radiation heat transfer and improve the "U" value of the glazing.

## **M**

**Mail Slot** - An opening provided in a door, sidelight or adjacent construction for the insertion of mail. (Size and location usually governed by the Postal Code).

**Master Key** - A key that will operate a number of different locks, each of which is different from the rest.

**Master Keying** - A system of keying cylinders so that one master key will operate all of them, secondary keys will operate only certain groups, and other keys will operate only certain individual cylinders.

**Medium Stile** - See Stile.

**Meeting Stile** - The stiles of the active and inactive leaves which meet when a pair of doors is closed.

**Miter** - A joint made up of two members, each of which is cut one-half the total angle of the joint.

**Mortise** - A rectangular cutout which is fabricated in the aluminum entrance door and/or frame in preparation to receive a lock or butt hinge.

**Mortise Lock** - A lock designed to be installed in a mortise on the stile of the door rather than applied to the door's surface.

**MSDS** - A Material Safety Data Sheet is a detailed information bulletin prepared by the manufacturer or importer of a chemical that describes the physical and chemical properties, physical and health hazards, routes of exposure, precautions for safe handling and use, emergency and first-aid procedures, and control measures. Information on an MSDS aids in the selection of safe products and helps prepare employers and employees to respond effectively to daily exposure situations as well as to emergency situations.

**Mullion** - An intermediate vertical or horizontal framing member used for separating lights of glass or panels set in a series.

**Muntin** - A secondary framing member used to hold panes within a window, window wall or glazed door.

## **N**

**Narrow Stile** - See Stile.

Neoprene - A synthetic rubber having physical properties closely resembling those of natural rubber but not requiring sulphur for vulcanization. Extremely good weather resistance (both heat and cold) with ultraviolet stability. Commonly used for glazing gaskets.

## **O**

Offset Arm - A steel bar (arm) connected to the overhead concealed closer spindle on one end and guided into the door top rail channel on the other end. Designed to transfer the door movement from the pivot point to the closer.

Offset Pivot - A pin-and-socket hardware device with bearing contact by means of which a door is suspended in its frame, allowing it to swing about an axis which is normally located about 3/4" out from the door face.

OSHA - Occupational Safety and Health Administration is a federal agency charged with making the laws and standards that are designed to make the work-place safe.

Overhead Closer - Surface type - an exposed door swing control and closer device mounted on the surface of a door and frame at its head.

Semi-concealed type - a door swing control and closing device mortised into the door top rail and/or frame head.

Concealed type - a door swing control and closer device concealed in the head of a door frame; has an arm which connects with the door at the top rail.

## **P**

Panic Exit Hardware - A door locking device used on exit doors; the door latch releases when a bar located across the interior leaf of the door is pushed.

Mortise type - panic exit hardware having the lock mechanism mortised into the edge of the door or concealed within the door.

Rim type - panic exit hardware having the lock mechanism mounted on the push side of the door.

Vertical rod type, surface or concealed - panic exit hardware having latches in or on the top and/or bottom of the door, which are activated through the crash bar by a rod linkage extending vertically on or in the door stile.

Plumb - The condition of exact vertical alignment.

Pocket Filler - An extrusion which snaps into a mating vertical or horizontal member to provide a glazing pocket.

**Poly-Aluminizer™** - A unique method of abrading the interior surface of the aluminum thermal cavity in order to provide a mechanical bond when the cavity is filled with polyurethane polymer thermal break material. Also see Thermal Cavity.

**Polyurethane** - Product produced by the reaction of a polyfunctional isocyanate with a polyol or other reactant containing two or more hydroxyl groups.

**Poured and Debridged** - Framing system thermal break made by flowing a catalyzed liquid material with low thermal conductivity into a one-piece channel and then removing the base of the channel or bridge after solidification to form a thermally improved extrusion. Also see Thermal Cavity.

**Pre-formed Gaskets** - Contoured extruded E.P.D.M. or neoprene glazing gaskets configured to fit into the glazing reglet of extruded aluminum framing systems and to secure the glass in the reglet by compression.

**Pressure Plate** - The second member of a composite vertical or horizontal mullion section consisting of two or more aluminum extrusions. The pressure plate is attached by bolts to the back member for securing the glass tightly between the two members, which are separated from direct contact with the glass by pre-formed gaskets. Pressure plates are usually concealed by a snap-on face cover. Also see Back Member and Pre-formed gaskets.

**Primer** - A substance that improves the adhesion of sealant or paint.

**Pull Hardware** - A fixed handle or grip used to pull a door open.

**Punch** - To perforate by pressing a non-rotating tool through the work.

**Purlins** - Horizontal members extending between rafters for supporting the glass on slope glazed systems.

**Push Bar** - A fixed bar or plate located across a glazed door used to open or close the door while providing protection for the glass.

## **Q**

**Quotation** - A price quoted by a contractor, subcontractor, material supplier, or vendor to furnish materials, labor, or both.

## **R**

**Racking** - The forcing out-of-plumb of structural components, usually by wind, seismic stress, or thermal expansion or contraction.

Rafter - Beams or mullions supporting the purlins in slope glazed systems.

Rail - A horizontal door member located at the top and bottom of the door or in an intermediate location.

Ream - To finish a drilled or punched hole very accurately with a rotating fluted tool of the required diameter.

Receptor - A channel-shaped, telescopic member which adapts the frame of a window wall or storefront system to the size of the window wall or storefront system opening; an adapter.

Removable Mullion - A door mullion which can be removed temporarily from a door frame to permit large objects to be moved through the frame.

Reveal - The distance from the face of a door to the face of the frame on the pivot or hinge side.

Ridge - The horizontal member at the junction of the upper edges of two sloping glass areas.

Roller Latch - A hardware device for holding a door in a closed position. It consists of a spring-loaded roller mortised into the edge of a door designed to engage with a grooved strike mortised into the frame jamb.

## S

“S” Value - Section Modulus of the cross section of a member about the neutral axis perpendicular to the loads. This section property is used to calculate the stress on a member under loads and is directly proportional to the capacity of the member. (Higher “S” values improve the member’s performance and reduce internal stress.)

Sash - An assembly of lightweight aluminum extrusions forming the perimeter of a fixed light of glass.

SBC - Standard Building Code was first enacted by the Southern Building Code Congress International on November 16, 1945. The SBC is a series of model building codes with the purpose of protecting the public’s life, health and welfare in the built environment. Area of influence: Southeastern portion of the United States.

Screw Spline Joinery - A type of joinery used in extruded aluminum panelized framing systems which eliminates the need for clips and exposed fasteners. The screw splines are designed as an integral part of the profiles most typically used as horizontals. Intermediate vertical mullions are designed as two part profiles so the fasteners can be concealed at the intersection of horizontal and vertical joints.

**Sealant** - An elastomeric material with adhesive qualities used to seal joints or openings against the passage of air and water.

**Sealant Backing** - A compressible material inserted into a joint prior to applying a sealant to limit the depth of the applied sealant. Also see Backer Rod.

**Setting Block** - A small piece of neoprene, E.P.D.M., silicone or other material placed in a frame to distribute the weight of the glass, to center the glass vertically within the frame and to prevent glass-to-metal contact. The recommended durometer for setting block material is  $85\pm 5$  Shore A scale. Also see Shore A.

**Shear Block** - A type of joinery that uses a clip (the shear block) attached to a vertical mullion. The horizontal member fits over the clip and is secured by screws driven into the shear block.

**Shim** - A spacer of uniform thickness and varying sizes used to plumb and level frames.

**Shore A** - Test used to measure the durometer (hardness) of elastomeric glazing gaskets and usually referred to as Shore A (Shore Instrument Company - Scale A). Also see Durometer.

**Sidelight** - The glazed frame or frames placed on one or both sides of a door.

**Silicone** - A chemical used as a lubricant or as a sealant.

**Single Acting Door** - A door mounted to swing in one direction only from the plane of its frame.

**Sill** - The bottom horizontal member of a framing system which rests on the floor slab.

**Slope Glazed** - A glass and framing assembly that is sloped more than  $15^\circ$  from vertical.

**Snowload** - Loads imposed on slope glazed structures by the accumulation of snow.

**Span** - Distance between centers of supports of a truss, beam or girder.

**Soffit** - The exposed undersurface of any overhead component of a building, such as an arch, balcony, beam, cornice, lintel, or vault.

**Soffit Bracket** - A bracket for mounting an exposed overhead door closer to the underside of a door frame head or transom bar; used for outswinging doors only.

**Spandrel** - Opaque glazing material most often used to conceal building elements between floors of a building so they cannot be seen from the exterior.

Speed Control - The mechanism that controls the rate of speed at which a door will operate.

Splice - A longitudinal or latitudinal connection between the parts of a continuous member.

S.T.C. - Sound Transmission Class is a single number rating that measures the sound insulation value of a partition, door, or window. It is derived from a curve of its insulation value as a function of frequency. The higher the number, the more effective the sound insulation.

S.T.L. - Sound Transmission Loss is a measure of the sound-insulation value of a partition. It is the amount, in decibels, by which the intensity of the sound is reduced in transmission through the partition.

Steel Reinforcing - A steel component placed within a vertical mullion to add stiffness and increase the windload capability of the system. Steel reinforcing may also be used to limit deadload deflection in intermediate horizontals.

Stiffener - A reinforcing member which serves to limit the deflection of the member to which it is attached.

Stile - A vertical member of a door, exclusive of applied glazing beads. Stiles are usually designated by function, such as lock stile, hinge stile or meeting stile. Thin Stiles have a face width of 13/4" or less, Narrow Stiles have a face width from 13/4" to 21/2", Medium Stiles have a face width from 3" to 4" and Wide Stiles have a face width greater than 4".

Stool - The narrow shelf fitted on the inside of a window which butts against the sill.

Storefront Sash - An assembly of moulding members forming a continuous frame for a fixed glass storefront. Also see Sash.

Strike - An opening or retaining device provided in the head, jamb or threshold of a door frame or in the edge of a stile in an inactive door to receive a lock or latch bolt. Also referred to as a Keeper or Strike Plate.

Box Strike - a strike consisting of a face plate with rectangular opening and a box like enclosure attached to the back of the plate and surrounding the opening.

Dustproof Strike - a strike placed in the floor, sill or threshold of an opening to receive a flush bolt which is equipped with a spring-loaded follower to cover the recess and prevent its filling with dirt.

Electric Strike - an electro-magnet strike used with a latch lock and actuated by a remote control which permits the door to be opened without retracting the latch.

Roller Strike - a strike for latch bolts which has a roller mounted in the lip to reduce friction.

Struct-Link™ - The process of intermittently debridging the aluminum thermal cavity leaving a small portion intact to create a structural link between the exterior and interior

surfaces without compromising materially the thermal performance of the system. Also see Debridging.

Structural Glazing - High modulus silicone is used to transmit the loads from the glass to the building structure or the aluminum members behind.

Subframe - A supporting frame installed prior to and concealed by a finished door frame.

Subsill - An aluminum extruded profile installed beneath the primary sill of a framing system specifically designed to function as a secondary defense for collecting infiltrated water which is then weeped to the exterior.

Sweep Strip or Door Sweep - A weatherstrip mounted at the top or bottom edge of a swing door.

Swing - The direction a swing door opens. Also see Hand of Door.

## **T**

“T” Anchor - An aluminum extruded shape with a cross section which resembles the letter “T”. This extrusion is cut into short lengths allowing the perpendicular leg(s) to slide fit into the top and bottom of the tubular vertical mullions for the purpose of securing the mullions by then fastening the horizontal flange of the “T” to the structure.

Temper (Aluminum) - Process used to bring a proper degree of hardness or elasticity by heat treatment. T5 - Artificially aged to improve mechanical properties and stability. T6 - Solution treated and artificially aged to improve the allowable stresses and consequently the capacity to resist greater Moments on curtain wall applications.

Tempered Glass - Strong, break-resistant glass created in a secondary process via controlled air cooling of the heated glass. Tempered glass is four times stronger than annealed glass; a form of safety glazing. When shattered, it breaks into small pieces.

Tempering - Strengthening glass with heat and controlled air cooling.

Template (for hardware) - A master pattern or scaled drawing showing all dimensions and hole spacing for hardware application.

Template Hardware - Hardware manufactured within template tolerances.

Thermal Break - An insulating material of low thermal conductivity placed between materials of high conductivity within the system itself to inhibit the flow of cold or heat.

Thermal Cavity - The hollow, channel or void provided in the extruded framing member into which the liquid thermal break material is poured.

**Thermal Expansion and Contraction** - An increase in the dimensions of a material in direct proportion to the rise in its temperature and conversely a dimensional shrinking as a result of a drop in temperature.

**Thermal Stress** - Strain on the edges of a glass pane caused by the faster expansion rate of the center of the light when exposed to heat.

**Thermal Transmittance (U Value)** - The time rate of heat flow per unit area under steady state conditions through a body for a unit air temperature difference on the two sides of the body.

**Thermally Improved** - Framing systems which for the most part have a continuous thermal isolator between the exterior and interior aluminum framing members but which have intermittent contact between the exterior and interior by a highly conductive material such as aluminum or a steel fastener used on popular pressure bar framing systems creating a thermal short circuit.

**Thin Stile** - See Stile.

**Threshold** - The lower horizontal member of a door frame extending from jamb to jamb that lies directly under a door and is set on the floor. Thresholds are not required on all door frames.

**Throw** - The distance which a lock bolt or latch bolt projects when in the locked position.

**Thumbturn** - A permanently attached small lever which, when turned, operates the bolt on a dead lock in the same manner as a key.

**Transom** - The frame area immediately above a door opening which contains fixed glass or an operating sash.

**Transom Bar** - The horizontal frame member (header) which separates the door opening from the transom.

**Trim Hardware** - Decorative finish hardware used to operate functional hardware or the door itself.

## U

**Uniform Building Code (UBC)** - The building code generally used in the western United States, developed by the International Conference of Building Officials (ICBO) in Whittier, CA. Area of influence: Areas in the United States west of the Mississippi River.

Uniform Construction Index - CSI format system to standardize classification of construction related products; Section 08411 - Aluminum Framed Storefronts, Section 08491 - Aluminum Framed Mall Sliding Doors, Section 08520 - Aluminum Framed Window Wall Systems, Section 08911 - Glazed Aluminum Curtain Walls, Section 08960 - Slope Glazed Systems.

U-Value - Measures the heat transfer through a material due to the difference in air temperatures on the two sides. (Lower U-values indicate better performance.) Also see Thermal Transmittance.

U.L. - Underwriters' Laboratories, Inc.

## V

Valley - The trough or gutter formed by the intersection of two inclined planes on a roof. The inclined planes are perpendicular to each other.

Vault - An arched structure forming the supporting structure of a ceiling or roof.

Veneer - A thin surface layer glued to a base of inferior material. To overlay (a surface) with a thin layer of a fine or decorative material.

Vestibule - A small entrance hall or passage between the outer door and the interior of a building.

## W

Walking Beam Pivot - A form of retractable top center hung pivot.

Water Deflector - A device typically inserted into the glazing pocket at the intersection of intermediate horizontal and vertical joints to deflect any infiltrated water over the ends of the lower light of glass and downward into the subsill where it is weeped to the exterior. On some framing systems consisting of two piece vertical and horizontal (face and back member) components, the water diverter may run the full length of the intermediate horizontal and is usually designed to be a rigid vinyl extrusion.

Weatherstrip - Material applied to the edges of a door, sash or to the inner edges of its frame to close the clearance opening and prevent the passage of air, moisture or dirt.

Wedge Glazing - Interior, flexible, continuous, pressure fit gasket that insures a high compression seal between the glass and the aluminum while applying pressure to the outside soft glazing gasket, thus sealing it. Also see Compression Gasket.

Weep Hole - A small opening in the sill or intermediate horizontal of aluminum storefronts, window wall and curtain wall systems which allows infiltrated water to drain to the building exterior.

Wet Glazing - A method of securing glass in a frame that uses sealants or glazing compounds instead of pre-formed dry resilient gaskets.

Wide Stile - See Stile.

Windload - Force exerted by wind on framing systems and complete structures, may be inward (positive) or outward (negative).

Window Wall - Aluminum framing systems designed for fixed horizontal ribbon window applications. Systems are usually designed for interior glazing infills and are installed between floor slabs on the building.

## **X Y Z**

Zinc Chromate - A bright yellow stable pigment used in paint and metal primers as a rust inhibitor.