HANDLING, STORAGE, AND PROTECTION OF ALUMINUM

The following precautions are recommended to protect the material against damage. Following these precautions will help ensure early acceptance of your products and workmanship.

A. HANDLE CAREFULLY.
   All aluminum materials at job site must be stored in a safe place, well removed from possible damage by other trades. Cardboard wrapped or paper interleaved materials must be kept dry.

B. CHECK ARRIVING MATERIALS.
   Check for quantity counts and keep records of where various materials are stored.

C. KEEP MATERIAL AWAY FROM WATER, MUD, AND SPRAY.
   Prevent cement, plaster, or other materials from damaging the finish.

4. PROTECT THE MATERIALS AFTER ERECTION.
   Protect erected frame with polyethylene or canvas splatter screen. Cement, plaster, terrazzo, other alkaline solutions, and acid based materials used to clean masonry are harmful to the finish. *If any of these materials come in contact with the aluminum, immediately remove with water and mild soap.*

The rapidly changing technology within the architectural aluminum products industry demands that C.R. Laurence/U.S. Aluminum reserve the right to revise, discontinue, or change any product line, specification, or electronic media without prior written notice.

NOTE: Dimensions in parentheses ( ) are millimeters unless otherwise noted.
GENERAL INSTALLATION NOTES
RECOMMENDED GUIDELINES FOR ALL INSTALLATIONS:

1. REVIEW CONTRACT DOCUMENTS. Check shop drawings, installation instructions, architectural drawings, and shipping lists to become thoroughly familiar with the project. The shop drawings take precedence and include specific details for the project. Note any field verified notes on the shop drawings prior to installing. The installation instructions are of a general nature and cover most conditions.

2. INSTALLATION. All materials are to be installed plumb, level, square, and true. Install operable windows preglazed only.

3. BENCH MARKS. All work should start from bench marks and/or column lines as established by the architectural drawings and the general contractor with guaranteed accuracy. Working from these datum points and lines determine:
   a) The plane of the wall in reference to offset lines provided on each floor.
   b) The finish floor lines in reference to bench marks on the outer building columns.
   c) Mullion spacing from both ends of masonry opening to prevent dimensional build-up of daylight opening.

4. FIELD WELDING. All field welding must be adequately shielded to avoid any splatter on glass or aluminum. Results will be unsightly and/or structurally unsound. Advise general contractor and other trades accordingly. All field welds of steel anchors must receive touch-up paint (zinc chromate) to avoid rust.

5. SURROUNDING CONDITIONS. Make certain that construction which will receive your materials is in accordance with the contract documents. If not, notify the general contractor in writing and resolve differences before proceeding with work.

6. ISOLATION OF ALUMINUM. Aluminum to be placed in direct contact with uncured masonry or incompatible materials should be isolated with a heavy coat of zinc chromate or bituminous paint.

7. SEALANTS. Sealants must be compatible with all materials with which they have contact, including other sealant surfaces. Consult with sealant manufacturer for recommendations relative to joint size, shelf life, compatibility, cleaning, priming, tooling, adhesion, etc. It is the responsibility of the Glazing Contractor to submit a statement from the sealant manufacturer indicating that glass and glazing materials have been tested for compatibility and adhesion with glazing sealants, and interpreting test results relative to material performance, including recommendations for primers and substrate preparation required to obtain adhesion. The chemical compatibility of all glazing materials and framing sealants with each other and with like materials used in glass fabrication must be established. This is required on every project.

8. FASTENING. Within the body of these instructions "fastening" means any method of securing one part to another or to adjacent materials. Only those fasteners used within the system are specified in these instructions. Due to the varying perimeter conditions and performance requirements, perimeter and anchor fasteners are not specified in these instructions. For perimeter and anchor fasteners refer to the shop drawings or consult the fastener supplier.

9. BUILDING CODES. Due to the diversity in state/provincial, local, and federal laws and codes that govern the design and application of architectural products, it is the responsibility of the individual architect, owner, and installer to assure that products selected for use on projects comply with all the applicable building codes and laws. U.S. Aluminum exercises no control over the use or application of its products, glazing materials, and operating hardware, and assumes no responsibility thereof.

10. EXPANSION JOINTS. Expansion joints and perimeter seals shown in these instructions and in the shop drawings are shown at normal size. Actual dimensions may vary due to perimeter conditions and/or difference in metal temperature between the time of fabrication and the time of installation. Gaps between expansion members should be based on temperature at time of installation.

11. WATER HOSE TEST. As soon a representative amount of the wall has been glazed (500 square feet or 46.5 m²) a water hose test should be conducted in accordance with AAMA 501.2 specifications to check the installation. On all jobs the hose test should be repeated every 500 square feet (46.5 m²) during the glazing operation.

12. COORDINATION WITH OTHER TRADES. Coordinate with the general contractor any sequence with other trades which offset curtain wall installation (i.e. fire proofing, back-up walls, partitions, ceilings, mechanical ducts, converters etc.).

13. CARE AND MAINTENANCE. Final cleaning of exposed aluminum surfaces should be done in accordance with AAMA 609.1 for anodized aluminum and 610.1 for painted aluminum.

14. JOB SITE ESSENTIALS. See pages 09 and 10.
INSTALLATION INSTRUCTIONS

These Instructions Cover Installation and Glazing of Project-Out Awning Windows into Storefront, Window Wall and Curtain Wall Systems.

Net window dimensions are Daylight Opening minus 1/4" (6.4) vertically and horizontally. Window units are fabricated and assembled at the factory. Windows may be shop or field glazed.

FRAME FABRICATION

1. Visually inspect all Bulb Gasket corners to assure no damage has occurred during shipment. See DETAIL A. If required, apply CAT. NO. RTV408 Silicone Sealant to damaged areas, leaving Vent open for proper drying.

   ![Diagram](#)

   **DETAIL A**

2. If necessary, remove Sash from frame prior to installation by removing screws attaching hinges to Sash.

3. Must apply sealant to all reglets receiving Pocket Fillers at window locations. See DETAIL B.

   ![Diagram](#)

   **DETAIL B**

   - **Center Glaze**
   - **Flush Front**
   - **Series 3250 (IW3250 Similar)**
4. Determine proper frame inset in glazing system. See DETAIL C.

5. Set frame in Daylight Opening (D.L.O.) of glazing system then shim, plumb, and level.

6. Secure frame to perimeter with flat head screws 3" (76) from corners and 12" (305) on center or as shown on approved shop drawings. Seal over perimeter fasteners See DETAIL C.

7. Apply and tool perimeter sealant CAT. NO. 33S/M64/M66 around framing.

NOTE: See approved shop drawings for required fastener size and type.

DETAIL C

Seal Screw Heads with CAT. NO. RTV408 Silicone Sealant.
1. Clean Glazing Fins with solvent prior to applying CAT. NO. V210812 Spacer Tape.

2. Place Setting Blocks at 1/4 points or as instructed by approved shop drawings See DETAIL D.

3. Cut and peel protective backing from tape. Apply tape full length of horizontal members, 1/2" (12.7) from edge of fin. Apply tape to the vertical members, abutting tightly to horizontal tape, 1/2" (12.7) from edge of fin. See DETAIL E

4. Set glass into opening, pressing against spacer tape.
5. Install temporary Glass Retainer Clips using CAT. NO. RG750 for 1" (25) glass as shown in DETAIL F.

6. Mask off aluminum at edge of glass pocket and mask glass 1/8" (3.2) from the edge of aluminum as shown in DETAIL F and G.

7. Apply Structural Silicone, tool and remove masking tape. Use caution in removing tape to avoid marring tooled Silicone. **Follow Sealant Manufacturers Recommendations for Surface Preparation and Cure Times.**

**NOTE:** Go to crlaurence.com for structural glazing sealants.

8. Remove temporary Glass Retainer Clips and mask edges of glass.

9. Apply exterior weatherseal to glass perimeter. See DETAIL H. Use caution in removing tape to avoid marring tooled Silicone. **Follow Sealant Manufacturers Recommendations for Surface Preparation and Cure Times.**
GUIDE TO SEALANTS

NOTE: All sealants must be tooled to ensure proper adhesion.

WATERPROOFING

• 33S ACETIC CURE SILICONE
  Sill to Subsill, End Dams, Screw Heads, and Threshold to Door Frame Sealing.

  Fill with Sealant to Create a Water Shed.
  CAT. NO. 33S

  NOTE: Not for use near insulating glass units with butyl sealant.

JOINT ADHESIVE

• RTV408 NEUTRAL CURE SILICONE
  Small Joints, End Joints and Buttered Surfaces, Water Diverters, End Dams and Reglet Fills.

  Fill screw riglet ends with
  CAT. NO. RTV408

  Seal Vertical Gasket Reglet
  CAT. NO. RTV408

  Seal Screw Heads
  CAT. NO. RTV408

  Seal Water Diverter
  CAT. NO. RTV408

  NOTE: I.G. butyl contact OK.

EXPANSION

• 95C NEUTRAL CURE SILICONE
  Expansion Joints.

  Bond Breaker Tape
  CAT. NO. 827T

  Seal Tape Edges
  CAT. NO. 95C

  Seal Gap
  CAT. NO. 95C

  Seal Screw Heads in Slotted (Expansion) Holes.
  CAT. NO. 95C

PERIMETER

• 95C NEUTRAL CURE SILICONE (Preferred)
  • M64 (SMOOTH) MODIFIED POLYURETHANE
  • M66 (TEXTURED) MODIFIED POLYURETHANE
  Perimeter Seals, Expansion Joints, Sill and Threshold Beds, Concrete, Wood, and Steel Openings.

  Exterior Perimeter Caulking
  CAT. NO. 95C/M64/M66

  Waterproofing Silicone Sealant
  CAT. NO. 33S/RTV408

  Do Not Block Weep Holes

STRUCTURAL

• ALL STRUCTURAL SEALANTS REQUIRE TESTING AND APPROVAL.
  Glass-to-Glass or Glass-to-Metal
JOB SITE ESSENTIALS
Helpful Tools and Supplies for Installing CRL U.S. Aluminum Entrances, Storefronts, Windows, and Curtain Wall Systems

CRL 95C Silicone Building Sealant
CRL RTV408 Neutral Cure Silicone
CRL 33S Silicone Sealant
CRL M64 Modified Smooth Polyurethane Construction Sealant

CRL M66 Modified Grainy Polyurethane Construction Sealant
CRL 12:1 Ratio Strap Frame Caulking Gun CAT. NO. GA1203
CRL Complete Set of Seven All Stainless Steel Spatulas CAT. NO. AB958G
CRL Utility Knife CAT. NO. K82

CRL Backer Rod Roller Tool CAT. NO. SBRR
CRL Soft-Face Power Hitter CAT. NO. ST57532
CRL Saint-Gobain/Norton V2100 Thermalbond® Structural Glazing Spacer Tape
CRL Spring Clamp CAT. NO. JC3202HT

CRL Plastic Horseshoe Shims
CRL PBS Series Plastic Bearing Shimstrips
CRL Gloves CAT. NO. KF1TL
CRL Utility Knife Blades CAT. NO. 1992C
CRL Bond Breaker Tape
CRL Glass Cutter CAT. NO. TC17B
CRL Running Pliers CAT. NO. PPG1
CRL Vacuum Cups CAT. NO. S7950
CRL Gasket Roller CAT. NO. VR10
CRL Gasket Cutter CAT. NO. MC80N
CRL Glass Cleaner CAT. NO. 1973
CRL Glass Wipes CAT. NO. 1550
CRL Tape Measure CAT. NO. 54125
CRL Glazier’s Rule Holder CAT. NO. RH670
CRL Phenolic L Square CAT. NO. L48
CRL Digital Laser Level Tool CAT. NO. 406065
CRL Glass Marking Pencil CAT. NO. GM44
CRL Belt Sander CAT. NO. LD321
CRL Glass Grinding Belts
CRL All Terrain Dolly CAT. NO. ATD1
CRL Hard Hat CAT. NO. ES3452
CRL Portable Ladder CAT. NO. 6206
CRL Cordless Screwdriver CAT. NO. LD823
CRL Cordless Driver/Drill CAT. NO. LD147