Product Name
Terrano 2100 Series
OmniClass 23-30 20 14 17
Associated Specification Section
MasterFormat 08 53 13 - PVC Windows
Manufacturer's Name
All Weather Windows

PRODUCT DESCRIPTION

PRODUCT FEATURES

- DESCRIPTION
  - Extruded multi-chamber plastic sections, factory fabricated, vision glass, related flashings, anchorage and attachment devices.
- BASIC USES / RELATED USES
  - Windows for residential and light commercial applications.
- PRODUCT ATTRIBUTES AND CHARACTERISTICS
  - Low-maintenance extruded PVC multi-chamber frame and sash, mitered with fusion welded corners, fully sealed.
  - Easy installations with integral pre-punched nailing flange.
  - Box frame construction.
  - Interior glazed.
  - Removable insect screen with aluminum frame and glass fibre mesh.
  - Weatherstripping of pile and brush seal at sash perimeter.
  - Properly sized units meet Canadian egress requirements.
- SELECTION CRITERIA
  - Available as picture (fixed, non-operable), fixed (full sash appearance), awning, casement, and in combinations thereof.
  - Available with various glazing options. Refer to manufacturer's website or printed literature.
  - Windows are available in many sizes and combinations. Refer to manufacturer's website or printed literature.
  - Online brochure available at: http://www.allweatherwindows.com.
- SUSTAINABILITY CRITERIA
  - Manufactured in Canadian facilities.
  - Manufacturer has established recycling program in place for waste plastic, aluminum and glass.

PRODUCT DESCRIPTION

- APPLICABLE STANDARDS, RELATED REFERENCES
  - AAMA/WDMA/CSA 101/I.S.2/A440-[08] [11] - NAFS - North American Fenestration Standard / Specification for Windows, Doors, and Skylights; including A440S1-09 - Canadian Supplement.
  - AAMA 2400-10 - Standard Practice for Installation of Windows with a Mounting Flange in Stud Frame Construction.
  - ASTM A123/A123M-12 - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
  - ASTM A653/A653M-11 - Specification for Sheet Steel, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
  - ASTM D696-08e1 - Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30°C and 30°C With a Vitreous Silica Dilatometer.
  - ASTM D4216-06 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) and Related PVC and Chlorinated Poly (Vinyl Chloride) (CPVC) Building Products Compounds.
  - ASTM E283-04(2012) - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
  - ASTM E330-02(2010) - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
  - ASTM E547-00(2009) - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference.
  - ASTM E783-02(2010) - Standard Test Method for Field Measurement of Air Leakage Through Installed Exterior Windows and Doors
  - ASTM E1105-00(2008) - Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors and Curtain Walls by Uniform or Cyclic Static Air Pressure Difference
  - ASTM E1300 - 12ae1 - Standard Practice for Determining Load Resistance of Glass in Buildings.
  - CAN/CGSB-12.1-M90 - Tempered or Laminated Safety Glass.

PRODUCT DESCRIPTION

- CAN/CGSB-12.2-M91 - Flat, Clear Sheet Glass.
- CAN/CGSB-12.3-M91 - Flat, Clear Float Glass.
- CAN/CGSB-12.8-M90 - Insulating Glass Units.
- CAN/CSA-A440-00 (R2005) - Windows.
- CAN/CSA-A440.2-09 - Fenestration Energy Performance.
- CAN/CSA-A440.4-07(R2012) - Window, Door, and Skylight Installation.
- CAN/CSA-G164-M92 (R2003) - Hot Dip Galvanizing of Irregularly Shaped Articles.
- IGMAC Certification Program for manufacturers of insulating glass units.
- ANSI/NFRC 100 - Procedure for Determining Fenestration Product U-Factors.
- ANSI/NFRC 200 - Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence.
- NFRC 500 - Procedure for Determining Fenestration Product Condensation Resistance Values.

- PERFORMANCE CRITERIA
  - Picture (fixed, non-operable) windows:
    - Classification rating to CAN/CSA-A440/A440.1:
      - Air tightness: Fixed.
      - Water tightness: B7.
      - Wind load resistance: C4.
    - Product designation and performance in compliance with AAMA/WDMA/CSA 101/I.S.2/A440 and A440S1-09:
      - Performance Grade: CW-PG75 (Size tested 1500 x 1500)
      - Performance Grade: CW-PG60 (Size tested 2400 x 1500)
      - Air Leakage Performance to ASTM E283: Fixed.
      - Water Penetration Resistance to ASTM E 547: 730 Pa.
  - Fixed (full sash appearance) windows:
    - Classification rating to CAN/CSA-A440/A440.1:
      - Air tightness: Fixed.
      - Water tightness: B7.
      - Wind load resistance: C5.

PRODUCT DESCRIPTION

- Product designation and performance in compliance with AAMA/WDMA/CSA 101/I.S.2/A440 and A440S1-09:
  - Performance Grade: CW-PG70 (Size tested 1500 x 1500)
  - Performance Grade: CW-PG50 (Size tested 2400 x 1500)
  - Air Leakage Performance to ASTM E283: Fixed.
  - Water Penetration Resistance to ASTM E 547: 730 Pa.

- Awning windows:
  - Classification rating to CAN/CSA-A440/A440.1:
    - Air tightness: A3.
    - Water tightness: B7.
    - Wind load resistance: C3.
    - Forced Entry: F20.
    - Insect Screens: S1.
  - Product designation and performance in compliance with AAMA/WDMA/CSA 101/I.S.2/A440 and A440S1-09:
    - Performance Grade: LC-PG50 (Size tested 1200 x 1200)
    - Performance Grade: LC-PG40 (Size tested 1500 x 1200)
    - Air Leakage Performance to ASTM E283: A3.
    - Water Penetration Resistance to ASTM E 547: 730 Pa.
    - Insect Screen Serviceability Test to ASTM E1748: Pass.
    - Operating Force Requirements to ASTM F 588 or ASTM F 842.

- Casement windows:
  - Classification rating to CAN/CSA-A440/A440.1:
    - Air tightness: A3.
    - Water tightness: B7.
    - Wind load resistance: C4.
    - Forced Entry: F20.
    - Insect Screens: S1.
  - Product designation and performance in compliance with AAMA/WDMA/CSA 101/I.S.2/A440 and A440S1-09:
    - Performance Grade: LC-PG60 (Size tested 800 x 1500)
    - Performance Grade: R-PG45 (Size tested 950 x 2100)
    - Air Leakage Performance to ASTM E283: A3.
    - Water Penetration Resistance to ASTM E 547: 730 Pa.
    - Insect Screen Serviceability Test to ASTM E1748: Pass.
    - Operating Force Requirements to ASTM F 588 or ASTM F 842.

- Glazing:
  - Refer to AWW Glazing Performance Chart

PRODUCT DESCRIPTION

- QUALITY STATEMENT, TESTS, CERTIFICATIONS, AND APPROVALS
  - CSA Certified manufacturing facility in conformance to CAN/CSA-A440.
  - Products comply with ENERGY STAR performance certification and labeling guidelines.
  - Products labelled in accordance with CSA Marking Requirements.
  - Products labelled in accordance with NAFS Marking Requirements.
- WARRANTY
  - Manufacturer's Limited Warranty: Two (2) years.
  - Plastic Components: Manufacturer's limited warranty of twenty (20) years from the date of manufacture against defects in materials and workmanship.
  - Insulated Glass Units: Manufacturer's limited warranty, pro-rated over twenty (20) years from date of manufacture such that air seal of insulated glass units will not fail due to defects in material and workmanship.
- LIMITATIONS
  - Smaller window sizes do not meet Canadian egress requirements.
- AVAILABILITY
  - Directly from manufacturer.
- COST
  - Consult manufacturer national or regional offices for specific product costs or relative costs.

PRODUCT PROPERTIES

- MATERIALS, COMPOSITION, PROPERTIES
  - Rigid, extruded polyvinyl chloride.
    - Complies with ASTM D4216.
    - Combustible material, but self-extinguishing.
    - Chemical resistant.
    - Rot resistant.
    - Hollow, multi-chambered sections.
  - Properties:

PRODUCT DESCRIPTION

- Tensile Strength: 2.60 N/mm².
- Notched Impact Strength: 2.0 – 45 kJ/m².
- Thermal Coefficient of expansion: 80x 10-6.
- Max Cont. Use Temp: 60 degrees Celsius.
- Density: 1.38 g/cm3.

- SHAPE, MASS, AND DIMENSIONS
  - Frames: Nominal 83 mm (3-1/4 inch) deep profile.
  - Sash: Nominal 65 mm (2-5/8 inch) deep profile.
- ACCESSORIES
  - Jamb Extension Options:
    - Standard PVC extensions available to jamb depths of 113 mm (4-1/2 inch), 165 mm (6-1/2 inch), and 168mm (6 5/8 inch).
    - Custom PVC extensions available up to jamb depths of 394 mm (15-1/2 inch).
    - Paint grade (primed) wood.
    - Stain grade (unfinished) wood.
  - Brickmould Options:
    - For renovations:
      - Colour : White
      - Colour (Acrylic Wrap): Black, Architectural Brown, Chocolate Brown, Pebble, Sable, and Clear Anodized.
    - For new construction:
      - 37 mm (1-1/2 inch) wide nominal face width with nailing fin.
      - Colour: White
    - Arctic Brickmould: 107 mm (4-3/16 inch) depth, multi-chamber PVC with nailing flange.
      - Colour: White.
    - Industrial Brickmould: 24 mm (1 inch) wide face, extruded aluminum; integral nailing flange, factory applied to the base window frame full perimeter.
      - Colour: White.
  - Rebate Flange:
    - Flat, heavy duty, wide beveled, and industrial rebate flanges are available. 58 mm (2-1/4 inch) wide face for flat, 59 mm (2-5/16 inch) wide face for heavy duty, 71 mm (2-13/16 inch) wide face for wide beveled, 49 mm (1-7/8 inch) wide face for industrial rebate flanges.
      - Colour : White
  - Weatherstripping:

PRODUCT DESCRIPTION

- Polypropylene pile and thermoplastic elastomer permanently resilient, profiled for continuous tight fitting weather seal.
- Brush seal weatherstripping, locked into integral extruded channel in window frame.
- Each opening to have not less than three weatherstrippings.
  - Sash: Not less than one weatherstripping.
  - Frame: Not less than two weatherstripping.

- Interior Grilles:
  - Flat Style: Available in 8 mm (5/16 inch), 16 mm (5/8 inch) and 25mm (1 inch) face width.
  - Georgian Style: Available in 16 mm (5/8 inch) face width.
  - Colour: Gold, White, Patina, Lead, Wicker.
  - Grille patterns available
    - Rectangular
    - Ladder
    - Double Ladder
    - Triple Ladder
    - Perimeter
    - Double Perimeter

- Simulated Divided Lite Grilles:
  - Flat Style: Available in 23 mm (7/8 inch) and 32 mm (1-1/4 inch) wide profile.
  - Colour: To match PVC extrusion colour.
  - Grille patterns available
    - Rectangular
    - Ladder
    - Double Ladder
    - Triple Ladder
    - Perimeter
    - Double Perimeter

- Insect Screen:
  - Rolled aluminum, pre-finished frame, spring loaded.
  - Glass fibre mesh.

- Hardware:
  - Awning Sash:
    - Sash Locking Handles: Cam handle with concealed keeper.
    - Operators: Roto-operator with stainless steel guide tracks.
    - Hinges: Manufacturer's standard type.
  - Casement Sash:
    - Sash Locks: Check rail cam lock with concealed keeper and multi-point

locking, positive detent with sash pull-in.
- □ Operators: Roto-operator with stainless steel guide tracks.
- □ Hinges: Manufacturer's standard type.

- ■ Limiting Device: Optional, limits projection of operable units to a 100mm (4 inch) clear opening.

- ○ Glazing options:
  - ■ Standard clear, double and triple insulating glass.
  - ■ Tempered glazing available.
  - ■ Low E double and triple insulating glass with argon gas.
  - ■ SunStop double and triple insulating glass with argon gas.
  - ■ Available Patterned Glass:
    - □ Pinhead Obscure
    - □ Glue Chip
    - □ Rain
    - □ Narrow Reeded
    - □ Cross Reeded
    - □ Opaque Glass
  - ■ Available Tinted Glass:
    - □ Bronze
    - □ Grey
    - □ Green.

- SHOP FABRICATION AND ASSEMBLY
  - ○ Shop fabricated.
  - ○ Steel reinforced as required to achieve performance criteria.

- FINISH, COLORS AND TEXTURES
  - ○ Frame and Sash PVC Extrusion Colours:
    - ■ White
  - ○ Exterior Finish (Acrylic Wrap):
    - ■ Black
    - ■ Architectural Brown
    - ■ Chocolate Brown
    - ■ Pebble
    - ■ Sable
    - ■ Clear Anodized

PRODUCT DESCRIPTION

PRODUCT PLACEMENT

- PREPARATION
  - Confirm window rough opening size by measuring at three (3) locations along the widths (left, center and right) and heights (top, middle, and bottom).
  - Confirm rough opening is square by cross-measuring from corner to corner.
  - Confirm rough opening is plumb, level, and not distorted.
  - Avoid interference with structural members. Site verification required.
  - Verify that adjacent air and vapour barrier interfacing materials are in place.
- INSTALLATION
  - Install windows in accordance the manufacturer's written instructions and AAMA 2400 or CAN/CSA-A440.4.
  - Place window shims on sill in each corner of rough opening and under each vertical mullion.
  - Place additional shims for large windows in accordance with manufacturer's instructions. Recommended dimensions for shims are 75 mm (3 inch) wide by 100 mm (4 inch) long site fabricated using plywood material.
  - Lift window into opening from exterior and rest sill of window on shims. Tack in place.
  - Confirm window is level, plumb, and square. Use additional shims at sides and top of window to ensure all components are straight and square and tight fitting to substrate.
  - Install remaining fasteners through pre-punched holes in the flange, not less than 150 mm (6 inch) from corners and spaced at approximately 300 – 450 mm (12 to 16 inches).
  - Confirm correct operation of operators and operating slider sash, seats fully into the frame.
  - Install drip flashing at head of window.
  - Coordinate attachment and seal of perimeter air and vapour barrier materials.
  - Insulate between window unit and framed opening.
- FINISHING
  - Paint or stain and seal unfinished or exposed wood surfaces within thirty (30) days of installation.
  - Paint Grade Wood Extensions:
    - Factory prime paint-grade wood extensions, apply minimum of two (2) coats of high quality paint.
    - Prime half-round and curved jamb extensions prior to painting.

PRODUCT DESCRIPTION

- Stain Grade Wood Extensions:
  - Apply one (1) or two (2) coats of stain, with top coat of lacquer or varnish.

- WASTE RECYCLING
  - Shipping blocks are corrugated cardboard and are recyclable.

- MAINTENANCE INSTRUCTIONS AND PROCEDURES
  - PVC Window Frames:
    - Clean surfaces using mild soap or diluted detergent solution with clean warm water, and wipe surfaces with a clean cloth, soft bristle brush, or low pressure spray cleaner.
    - Rinse surfaces thoroughly with clean water before soap or detergent dries. Wipe dry to avoid water marks.
  - Hardware:
    - Clean and lubricate hardware components regularly to prevent excessive wear. Use diluted household cleaner and wipe clean all hardware components.
    - Rinse hardware with clean water to remove detergent or cleaner prior to lubricating.
    - Lubricate rollers using silicone based lubricants. Avoid using petroleum based lubricants.
  - Insect Screens:
    - Vacuum interior mounted screens with soft brush attachment or wipe with a soap and water solution.
    - To wash, remove screen and lay on flat surface. Apply cleaning solution and let soak for several minutes. Rinse using a low pressure garden hose spray.
  - Glass Surfaces
    - Clean with mild soap or vinegar-based cleaner. Wipe dry with clean, lint-free cloth.
    - Clean grease, oil, tape adhesive, crayons, markers, or paint with mild abrasive, then repeat cleaning steps listed above.

Corporate Identification
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Classification and Filing

MasterFormat 2013:
08 53 13 - PVC Windows

OmniClass:
23-30 20 14 17 – Plastic Windows

UniFormat:
B2020 – Exterior Windows

END