

## **1 General**

### **1.1 RELATED REQUIREMENTS**

- .1 Section 07 92 00 - Joint Sealants.

### **1.2 REFERENCES**

- .1 ASTM D 256 - Test Method for Determining the Pendulum Impact Resistance of Notched Specimens of Plastics.
- .2 ASTM D 635 - Test Method for Rate of Burning and/or Extent and Time of Burning of Self-Supported Plastics in a Horizontal Position.
- .3 ASTM D 638 - Test Method for Tensile Properties of Plastics.
- .4 ASTM D 648 - Test Method for Deflection Temperature of Plastics Under Flexural Load.
- .5 ASTM D 696 - Test Method for Coefficient of Linear Expansion of Plastics.
- .6 ASTM D 1929 - Test Method for Ignition Properties of Plastics.
- .7 ASTM D 2843 - Test Method for Density of Smoke from the Burning or Decomposition of Plastics.
- .8 ASTM D 3679 - Specification for Rigid Poly Vinyl Chloride (PVC) Siding.
- .9 ASTM D 4226 - Test Methods for Impact Resistance of Rigid Poly Vinyl Chloride (PVC) Building Products.
- .10 ASTM E 84 - Test Method for Surface Burning Characteristics of Building Materials.
- .11 ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials.

### **1.3 SUBMITTALS**

- .1 Submit under provisions of Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
  - .1 Manufacturer's data sheets on each product to be used, including:
    - .1 Preparation instructions and recommendations.
    - .2 Storage and handling requirements and recommendations.
    - .3 Installation methods.
- .3 Selection Samples:
  - .1 For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
  - .2 For each finish product specified, two samples, minimum size 150 mm square, representing actual product, color, and patterns.
- .4 Manufacturer's Certificates:
  - .1 Certify products meet or exceed specified requirements.
- .5 Closeout Submittals:
  - .1 Provide manufacturer's maintenance instructions that include recommendations for periodic cleaning and maintenance.

### **1.4 QUALITY ASSURANCE**

- .1 Manufacturer Qualifications:
  - .1 Maintain rigorous production quality control standards to ensure that vinyl siding will perform as expected for its intended use.
  - .2 Products meet or exceed the requirements of ICC and VSI and listed by ICC International Code Council and VSI Vinyl Siding Certification Programs.
- .2 Installer Qualifications:
  - .1 Installer with not less than three years documented experience with products specified or who has passed the Vinyl Siding Institute's (VSI) Certified Installer Program.

- .3 Mock-Up:
  - .1 Provide a mock-up for evaluation of surface installation techniques and workmanship.
  - .2 Do not proceed with remaining work until workmanship, color, and sheen are approved by the Departmental Representative.
  - .3 Reinstall mock-up area as required to produce acceptable work.
- .4 Regulatory Requirements:
  - .1 National Building Code - BOCA Research No. 93-42.
  - .2 Standard Building Code - SBCCI Compliance Report No. 9632.
  - .3 Uniform Building Code - ICBO Evaluation Report No. 3663.
  - .4 HUD-FHA Minimum Property Standards.
  - .5 Dade County Florida Acceptance No. 03-1105.05.
  - .6 Texas Department of Insurance Evaluation EC-3.
  - .7 Underwriters Laboratories Listing R14214.
  - .8 State of Florida Product Approval - FL12103 and 12143.
  - .9 NYC Department of Buildings, Materials and Equipment Acceptance (MEA).
  - .10 ICC - ESR-1258, ESR 1133.

#### **1.5 DELIVERY, STORAGE AND HANDLING**

- .1 Store products in manufacturer's unopened packaging until ready for installation.
- .2 Pack siding and soffits two squares per carton and clearly mark each carton with manufacturer's name, siding style, color, identifying lot number, and VSI Certification Stamp.
- .3 Store vinyl siding, soffits, and accessories in clean, dry area, out of direct sunlight.
- .4 Handle material to prevent damage. Do not allow cartons to crease.

#### **1.6 SEQUENCING**

- .1 Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

#### **1.7 PROJECT CONDITIONS**

- .1 Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

#### **1.8 WARRANTY**

- .1 Provide manufacturer's lifetime non-prorated transferable limited warranty with Dura Color coverage.

#### **1.9 WASTE MANAGEMENT AND DISPOSAL**

- .1 Collect and separate for disposal waste material generated by this Section.
- .2 Place in appropriate on-site bins in accordance with Waste Management Plan.
- .3 A clean worksite is mandatory at all times. Failure to maintain the site in a clean, safe condition shall result in the Departmental Representative initiating a clean-up and related costs being deducted from progress claims.
- .4 Do not dispose of unused caulking materials into the sewer systems, into lakes, streams, onto ground or in locations where it will pose health or environmental hazard.

### **2 Products**

#### **2.1 PERFORMANCE**

- .1 Vinyl Siding General: Produced from polyvinyl chloride (PVC) compounds meeting

- ASTM D 3679 requirements for compound class number 2.
- .2 Typical Physical Properties:
  - .1 IZOD Impact Strength: 2.4 ft-lb/in at 23 degrees C per ASTM D-256.
  - .2 Tensile Strength: Greater than 6000 PSI, per ASTM D-638.
  - .3 Modulus of Elasticity: Greater than 365,000 PSI, per ASTM D 638.
  - .4 Deflection Temperature Under Load: 77 degrees C @ 264 Psi per ASTM D 648.
  - .5 Coefficient of Linear Expansion: 3.07 105 in/in/degrees F, per ASTM E 831.
  - .6 Chemical Resistance: Excellent per ASTM D 543.
  - .7 Cell Classification: Class #1334434 per ASTM D 1784.
  - .8 Compound Class: Class #2 per ASTM D 3679.
- .3 Siding/Extrudate Typical Physical Properties:
  - .1 Impact Resistance: 2.75 in-lb/mil at 23 degrees C when tested in accordance with ASTM D 4226.
  - .2 Impact Resistance: 1.90 in-lb/mil at 0 degrees C when tested in accordance with ASTM D 4226.
  - .3 Low Temperature Flexibility: Greater than 80, passed CAN/CGSB41-24-95.
  - .4 Shrinkage/reversion: Greater than 3.0 when tested in accordance with ASTM D 3679.
  - .5 Surface Distortion (oil can): Less than 150 degrees F when tested in accordance with ASTM D 3679.
  - .6 Nominal thickness: 1.17 mm when tested in accordance with CAN/CGSB41-24.
  - .7 Wall thickness: 0.046 inch when tested in accordance with ASTM D 3679.
- .4 Fire Properties: Meets UBC 42-1:
  - .1 Flame Spread Index: 18 when tested in accordance with ASTM E 84.
  - .2 Fuel Contribution: 0 when tested in accordance with ASTM E 84.
  - .3 Smoke Developed Index: 510.2 when tested in accordance with ASTM E 84.
  - .4 Self-ignition temperature: 810 degrees F when tested in accordance with ASTM D 1929.
  - .5 Smoke Density Rating: 42.1 percent when tested in accordance with ASTM D 2843.
  - .6 Maximum smoke density: 56.0 percent when tested in accordance with ASTM D 2843.
  - .7 Total burn time: Less than 5 seconds when tested in accordance with ASTM D 635.
  - .8 Total burn time: Less than 5 seconds when tested in accordance with ASTM D 635.
  - .9 Extent of burning: Less than 5 mm when tested in accordance with ASTM D 635.
  - .10 Fire resistance rating: 1 hour when tested in accordance with ASTM E 119.

## 2.2 SOFFITS

- .1 Solid and vented soffit:
  - .1 Double 5 soffit profiles in both solid and vented.
  - .2 Single nail hem.
  - .3 Length: 3658mm.
  - .4 Width: 254mm.
  - .5 Colour: White.

## 2.3 ACCESSORIES

- .1 Standard Siding Accessories:
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- .1 Provide inside corners, outside corners, j-channels, finish trim, etc. as required for the project.
- .2 Provide compatible pre-finished metal flashing as indicated on drawings.
- .3 Consistent with shape, size, and properties shown on the Drawings and as required for complete installation.
- .4 Produced from the same compound materials and with comparable properties as the siding.
- .5 Color: Matching or color coordinated with siding.
- .2 Standard Soffit Accessories:
  - .1 Provide frieze trim, T-Trim, 3/8 inch, Designer Crown J-channels, J-channels, etc. as required for the project.
  - .2 Consistent with shape, size, and properties shown on the Drawings and as required for complete installation.
  - .3 Produced from the same compound materials and with comparable properties as the siding.
  - .4 Color: Matching or color coordinated with soffit.

### **3 Execution**

#### **3.1 EXAMINATION**

- .1 Do not begin installation until substrates have been properly prepared.
- .2 Confirm that all critical dimensions are as specified on the drawings.
- .3 If substrate preparation is the responsibility of another installer, notify Departmental Representative of unsatisfactory preparation before proceeding.

#### **3.2 PREPARATION**

- .1 Clean surfaces thoroughly prior to installation.
- .2 Repair substrate flaws or defects before applying siding or soffits.
- .3 Where necessary, fur surfaces to an even plane and free from obstructions before application.
- .4 Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

#### **3.3 INSTALLATION**

- .1 Install siding, soffits & trim in accordance with the latest edition of the manufacturer's Installation Instructions.
- .2 Install vinyl siding, soffits, and accessories in accordance with best practice, with all joint members plumb and true.
- .3 Securely attach siding using methods and materials recommended by siding/soffit manufacturer for wind load conditions at project site.
- .4 Install vinyl siding and accessories with all joint members plumb and true.

#### **3.4 FIELD QUALITY CONTROL**

- .1 After installation of siding, soffits & trim, check entire surface for obvious flaws or defects.
- .2 Replace and repair any problem areas, paying close attention to the substrate for causes of the problem.

#### **3.5 CLEANING**

- .1 After application of siding and soffits, clean as necessary to remove all fingerprints and soiled areas.
- .2 Upon completion of siding application, clean entire area, removing all scrap, packaging,

and unused materials related to this work.

**3.6 PROTECTION**

- .1 Protect installed products until completion of project.
- .2 Touch-up, repair or replace damaged products before Substantial Completion.

**END OF SECTION**

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