

# CRANE PERFORMANCE SIDING SOLID CORE PRODUCT SPECIFICATIONS

## PART 1 GENERAL

### 1.01 Scope of Work

Furnish all necessary labor, material and equipment for complete installation of Crane Performance Siding Solid Core Siding and related work as shown on drawings or specified herein.

### 1.02 References

American Society for Testing and Materials (ASTM) D 3679. Standard Specification for Rigid Poly Vinyl Chloride (PVC) Siding and (ASTM) C578-01 (type 1).

- D 256 Test Methods for Impact Resistance of Plastics and Electrical Insulating Material
- D 638 Test Method for Tensile Properties of Plastics
- D 648 Test Method for Deflection Temperature of Plastics Under Flexural Load
- D 696 Test Method for Coefficient of Linear Thermal Expansion of Plastics
- D 1929 Test Method for Ignition Properties of Plastics
- D 2843 Test Method for Density of Smoke from the Burning or Decomposition of Plastics
- D 3679 Standard Specification for Rigid Poly Vinyl Chloride (PVC) Siding
- D 4226 Test Methods for Impact Resistance of Rigid Poly Vinyl Chloride (PVC) Building Products
- C 236 Standard Test Method for Steady-State Thermal Performance of Building Assemblies by Means of a Guarded Hot Box
- C 272 Standard Test Method for Water Absorption of Core Materials for Structural Sandwich Constructions
- C 303 Standard Test Method for Dimensions and Density of Preformed Block-Type Thermal Insulation
- C 578 Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation
- E 96 Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products

### 1.03 Submittals

Submit samples of siding design, size and color for approval.

### 1.04 Quality Assurance

Manufacturer to certify that vinyl siding as supplied meets or exceeds the conditions specified in section 2.02 Materials.

Regulatory Compliance:

1. National Building Code – BOCA Research #97-35
2. Standard Building Code – SBCCI Compliance Report #2223
3. Uniform Building Code – ICBO Evaluation Report #ER-3378
4. HUD – FHA Minimum Property Standards
5. Texas Department of Insurance – EC01

### 1.05 Delivery, Storage and Handling

Siding to be packed two squares per box (except Top Course). Each box to be clearly marked with the manufacturer's name, the siding style, color and identifying lot number.

Prior to application, vinyl siding and accessories are to be stored in an area that is clean, dry and out of direct sunlight. Do not store in location where temperatures may exceed 130 degrees F.

Handle material in a manner to prevent damage. Do not allow siding cartons to crease.

### 1.06 Warranty

Upon completion provide a written Transferable, Lifetime Limited Warranty.

## PART 2 PRODUCTS

### 2.01 Manufacturer

Material to be supplied by Crane Performance Siding, Columbus, OH 43216. (800) 366 8472  
[www.cranesiding.com](http://www.cranesiding.com)

## 2.02 Materials

All Crane Performance Siding Solid CoRe Vinyl Siding shall be extruded Poly Vinyl Chloride (PVC), fused with expanded Polystyrene insulation and shall conform to all of the requirements established by ASTM Specifications D 3679 and C 578, developed in cooperation with the industry and published by the American Society for Testing and Materials. Vinyl Siding shall be VSI certified.

All Crane Performance Siding meets or exceeds the following properties:

Impact Strength @ 74°F	2.12 ft. lb./in. of notch (ASTM D 256)
Impact Strength @ 32°F	1.80 ft. lb./in. of notch (ASTM D 256)
Tensile Strength	7331 psi (ASTM D 638)
Modulus of Elasticity	403308 psi (ASTM D 638)
Coefficient of Linear Expansion	3.17 x 10 <sup>-5</sup> in./in. F° (ASTM D 696)
Warp	<1/8 in. (ASTM D 3679)
Heat Shrinkage	0.00 (ASTM D 3679)
Weatherability	No cracking, peeling, chipping or surface defects
Surface Distortion	No distortion at 120°F (ASTM D 3679)
Impact Resistance	216 in./lb. (ASTM D 4226)
Polystyrene Density	1.0 lb./cu.ft. (ASTM C 303)
System R-Value	Up to 4.0* (ASTM C 236) * R-Values vary slightly depending upon profile.
Water Permeability	Not less than 5.0 perm/inch maximum (ASTM E 96)
Water Absorption for Expandable Polystyrene	<2.75% by volume (ASTM C 272)

### Fire Resistance Characteristics:

Average Time of Burning	<5 sec. (ASTM D 635)
Average Extent of Burning	9.4 mm (ASTM D 635)
Flame Spread	15 (ASTM E 84)
Smoke Density	460 (ASTM E 84)
Ignition Properties	Self Ignition did not occur. At 797°F sample began to smolder and continued until consumed (ASTM D 1929)

### **Siding Dimensions and Descriptions:**

#### SELECT APPLICABLE DESCRIPTION

<b>Oracle</b>	1-1/8" panel projection, True Milled Finish, ( <i>Select Profile</i> ) Quad 4" Clapboard, Length 12'6", Width 16"; Quad 4-1/2" Dutchlap, Length 12'1", Width 18"; Top Course Clapboard, Length 12'6", Width 8"; Top Course Dutchlap, Length 12'1", Width 9".
<b>CraneBoard</b>	1-1/8" panel projection, True Milled Finish ( <i>Select Profile</i> ) Triple 6" - Length 12'1", Width 18"; Double 7" - Length 12'3", Width 14"; Top Course - Length 12'1", Width 6"

**SOUND PERFORMANCE** Solid CoRe Siding has been tested for sound transmission and has an STC of 16 and an OITC of 12. Comparatively, conventional veneer vinyl sidings have an STC of 11 and an OITC of 9.

**THERMAL EXPANSION** Crane Performance Siding Solid CoRe Siding is made from Crane's exclusive Vycralar formulation fused together with contoured expandable polystyrene. Both components are very compatible because of their nearly identical coefficients of expansion and contraction.

Vycralar's thermal expansion is .000036 in./in./F (ASTM D 696); the contoured foam's thermal expansion is .000035 in./in./F.

**WEEP HOLES** Small holes under the bottom butt prevent vapor build-up and allow accumulated moisture to escape.

**FUSION TECHNOLOGY** Solid CoRe Siding tested, passed and complies with the temperature cycling requirements of (AC 37). There was no separation between the foam backing and the siding.

### **2.03 Accessories**

Accessories shall be consistent with the shape, size and properties as shown in the drawing and as required for complete installation. Accessories shall be produced from the same compound materials and with comparable properties as the siding.

#### Schedule of Accessories

1. Underlayment Starter Strip: Metal
2. Underlayment Starter Strip: Vinyl
3. 1-1/8" J-Channel
4. Universal J-Channel
5. Dual Undersill Trim
6. Outside Corners: 3-piece system: including Corner Connector, 5" Lineals with foam insert, 5-1/2" Outside Corner Post with foam insert, True Milled outside corner post, Woodgrain outside corner post.
7. Inside Corner Post
8. Architectural Essentials: 5" Window Lineals with foam inserts
9. Architectural Essentials: 3-1/2" Window Lineals with foam inserts
10. Architectural Essentials: Window Sill Lineal with foam insert
11. Architectural Essentials: Transition Lineal with foam insert
12. 3-1/2" Finish Board
13. Gable Trim: 5" Lineals
14. Frieze Board: 5" Lineals
15. Miscellaneous Channels to suit project conditions

## **PART 3 EXECUTION**

### **3.01 Examination**

Confirm that all critical dimensions are as specified in the drawings. Examine substrate flaws and defects.

### **3.02 Preparation**

Any substrate flaws or defects must be repaired before the vinyl siding is applied. Vinyl siding must be applied to walls that are in plane and free from obstructions.

### **3.03 Installation**

Begin by applying the standard vinyl siding installation practices outlined in the latest edition of the Vinyl Siding Installation "A How-To Guide" published by the Vinyl Siding Institute of the Plastics Industry. In addition, Solid CoRe Sidings must be installed in accordance with the Solid CoRe Siding Installation Tips published by Crane Performance Siding.

The vinyl siding and accessories shall be installed in accordance with the best practice, with all joint members plumb and true.

### **3.04 Field Quality Control**

After installation of siding, check entire surface for obvious flaws or defects. Replace and repair any problem areas.

### **3.05 Clean-Up**

After the vinyl siding has been applied, clean as necessary to remove all fingerprints and soiled areas. Upon completion of the siding application, the entire area is to be cleaned, removing all scrap, packaging and unused building materials.