



# Perfection Single 7" Shingle Specifications

## PART 1 – GENERAL

### 1.01 Scope of Work

- A. Furnish all necessary labor, material and equipment for complete installation of Kaycan Perfection Single 7" Shingle related work as shown on drawings or specified herein.

### 1.02 References

- A. American Society for Testing and Materials (ASTM)
  - ASTM D618 - Standard Practices for Conditioning Plastics for Testing
  - ASTM D635 - Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position
  - ASTM D638 – Standard Test Method for Tensile Properties of Plastics
  - ASTM D1435 – Standard Practice for Outdoor Weathering of Plastics
  - ASTM D1929 - Standard Test Method for Determining Ignition Temperature of Plastics
  - ASTM D3679 - Standard Specification for Rigid Poly-Vinyl Chloride (PVC) Siding
  - ASTM D4101 – Standard Specification for Polypropylene Injection and Extrusion Materials
  - ASTM D4226 - Standard Test Methods for Impact Resistance of Rigid Poly-Vinyl Chloride (PVC) Building Products
  - ASTM D5206 – Standard Test Method for Windload Resistance of Rigid Plastic Siding
  - ASTM D7254 – Standard specification for Polypropylene (PP) Siding
  - ASTM G147 – Standard Practice for Conditioning and Handling of Nonmetallic Materials for Natural and Artificial Weathering Tests
  - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials

### 1.03 Submittals

- A. Submit samples of Perfection Single 7" Shingle design, size and color for approval.
- B. Product data: Manufacturers standard printed product data and installation instruction for specified products.
- C. Selection samples: Submit color chips of manufacturer's full range of colors for Architects selection.
- D. Verification samples: Submit three samples, each 12 inch in length, of each specified product in the specified color.
- E. Quality assurance submittals.

### 1.04 Quality Assurance

- A. Manufacturer to certify that Perfection Single 7" Shingle as supplied meets or exceeds the conditions specified in section 2.02.
- B. Regulatory compliance:
  - 1. Conforms to ASTM D7254
  - 2. ICC Evaluation Report ESR-3806 Compliance with:
    - International Building Code (IBC) 2012, 2015
    - International Residential Code (IRC) 2012, 2015
  - 3. Florida Building Code approval (FBC) 2017

### 1.05 Delivery, Storage and Handling

- A. Perfection Single 7" Shingle is packed in carton boxes bearing product name, product code, number of pieces, size, and date of manufacture.

- B. Prior to application, Perfection Single 7" Shingle and accessories are to be stored in an area that is clean, dry and out of direct sunlight
- C. Handle material in a manner to prevent damage. Do not allow to crease.

### 1.06 Warranty

Kaycan supports Perfection Shingles with a Lifetime Limited Warranty that is transferable.

## PART 2 – PRODUCTS

### 2.01 Manufacturer

- A. Materials to be supplied by Kaycan Ltd., [www.kaycan.com](http://www.kaycan.com)
- B. Substitutions not permitted.

### 2.02 Materials

- A. Perfection Single 7" Shingle shall conform to all of the requirements established in ASTM Specification D7254, developed in cooperation with the industry and published by the American Society for Testing and Materials. Manufacturer shall maintain rigorous production quality control standards to assure that Kaycan Perfection Single 7" Shingle will perform as expected for its intended use.

- B. **Typical Properties:** Kaycan Perfection Shingles are molded manufactured from modified polypropylene copolymer. The material has a solid color throughout and is UV stabilized. Strict control of color is assurance for outstanding weatherability.

Test Criteria: Typical Properties

Tensile Strength (ASTM D638): 3200 psi

Yield elongation (ASTM D638): 5%

Notched Izod Impact @73° F (ASTM D 256): ≥ 2 ft-lb/in

- C. **Fire Resistance Properties:**

Flame Spread Index (ASTM E84): 103

Smoke Developed Index (ASTM E84): 746

Burn rate (ASTM D635): < 1inch/minute

Minimum self-ignition temperature (ASTM D1929): 690°F

Meets NFPA 268 acceptance criteria

Fire safety:

When exposed to considerable heat or flame, polypropylene Perfection Shingles when tested in conformance with recognized fire test procedures, will soften, melt or burn, and may possibly expose the material underneath. Care needs to be taken when selecting underlayment materials because many are made from organic materials that are combustible. Fire properties of underlayment materials must be established prior to their installation. All burnable materials should be installed in accordance with local, state (provincial), and federal fire regulations and building codes.

- D. **Typical Physical Properties:**

Test Criteria: Typical Properties

Impact Resistance (ASTM D4226):

42.87 in-lbf (Procedure A, H.25)

Windload Resistance: meets requirements of ASTM D7254 when tested as per ASTM D5206.

Weathering Requirements: Kaycan Perfection Shingles are continually tested for weatherability in both light and dark colors. Kaycan Perfection Shingles are manufactured from the highest quality outdoor material that is designed specifically for exterior applications.



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## **E. Dimensions and Description:**

Kaycan Perfection Single 7" Shingles are molded from natural cedar wood shingles, and are appropriate for use in new construction and remodeling. They look like wood shingles but do not require the maintenance that is common to wood products.

## **F. Siding Panel Description:**

Single 7" staggered shingles with continuous nail hem, nominal thickness 0.090", total length 71 $\frac{3}{4}$ ", exposed length 70  $\frac{1}{2}$ ", 7  $\frac{1}{8}$ " exposure, butt height dimension 0.500".

## **2.03 Accessories:**

A. Accessories shall be consistent with the shape, size and properties as shown in the drawing and as required for complete installation. Color shall be matched or color coordinated to the Perfection Shingles according to the architect's specifications.

Accessories shall be produced from the same materials and with comparable properties as the Perfection Shingles.

## **2.04 Fasteners:**

A. Galvanized nails or other corrosion-resistant fasteners, with a minimum 11/32 in. diameter head and minimum  $\frac{1}{8}$  in. diameter shank.

## **PART 3 – EXECUTION**

### **3.01 Examination**

- A. Confirm that all critical dimensions are as specified in the drawings.
- B. Commencement of the Perfection Shingles installation implies acceptance of the substrate as suitable to accept siding.

### **3.02 Preparation**

A. Any substrate flaws or defects must be repaired and free from obstructions before the Perfection Shingle is applied.

### **3.03 Installation**

- A. Installs best over a solid substrate, 7/16" or better, with nail holding strength. The use of a plastic or woven house wrap is recommended.
- B. For accessory items  $\frac{3}{4}$  inch minimum pocket width opening for the J-Channel, Inside, and Outside Corners are required.
- C. Do not place a nail in the far right position until the overlapping panel is positioned correctly; recommend a nail every 8-12 inches.
- D. Install in accordance with Perfection Shingle Siding Installation Instructions.
- E. The Perfection Shingles and accessories shall be installed in accordance with the best practice. All nails along the nailing hem must be driven in until there is a 1/8 inch to 1/16 inch space. The nails must be centered in every nail slots.
- F. Use the indicator provided on the panel as a guide for the amount of space between panels at the time of installation.

### **3.04 Field Quality Control**

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

### **3.05 Cleaning**

- A. After the Perfection Shingle has been applied, clean as necessary to remove all fingerprints and soiled areas.
- B. Clean and remove all scrap, packaging and unused materials resulting from the installation of the products.