



I-span Wall panel Specifications

PART 1 – GENERAL

1.01 Scope of Work

- A. Furnish all necessary labor, material and equipment for complete installation of Kaycan I-span panel related work as shown on drawings or specified herein.

1.02 References

- A. American Society for Testing and Materials (ASTM)
 - ASTM D256 - Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics
 - 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 D648 - Standard Test Method for Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position
 - ASTM D696 - Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30°C and 30°C with a Vitreous Silica Dilatometer
 - ASTM D790 - Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
 - ASTM D1929 - Standard Test Method for Determining Ignition Temperature of Plastics
 - ASTM D2843 - Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics
 - ASTM D3678 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Interior-Profile Extrusions
 - ASTM D3679 - Standard Specification for Rigid Poly-Vinyl Chloride (PVC) Siding
 - ASTM D4216 - Standard Specification for Rigid Poly-Vinyl Chloride (PVC) and Related PVC and Chlorinated Poly-Vinyl Chloride (CPVC) Building Products Compounds
 - ASTM D4226 - Standard Test Methods for Impact Resistance of Rigid Poly-Vinyl Chloride (PVC) Building Products
 - ASTM D6864 - Standard Specification for Color and Appearance Retention of Solid Colored Plastic Siding Products
 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials

1.03 Submittals

- A. Submit samples of I-span panel design, size and color for approval.
- B. Product data: Manufacturers standard printed product data and installation instruction for specified products.
- C. Verification samples: Submit three samples, each 12 inch in length.
- D. Quality assurance submittals.

1.04 Quality Assurance

- A. Manufacturer to certify that I-span panel as supplied meets or exceeds the conditions specified in section 2.02.
- B. Regulatory compliance:
 - 1. Conforms to ASTM D3678.

1.05 Delivery, Storage and Handling

- A. I-span panel is packed in wooden crates bearing product name, product code, number of pieces, size, and date of manufacture.
- B. Prior to application, I-span panel 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

Limited Lifetime Warranty

PART 2 – PRODUCTS

2.01 Manufacturer

- A. Materials to be supplied by Kaycan Ltd., www.kaycan.com
- B. Substitutions not permitted.

2.02 Materials

- A. I-span panels shall conform to all of the requirements established in ASTM Specification D3678, 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 I-span panel will perform as expected for its intended use.

- B. **Typical Compound Properties:** I-span panel is produced from Kaycan's exclusive Duratron formula that contains 25% of recycled material. Duratron formula is a Poly Vinyl Chloride (PVC) compound meeting the requirements of ASTM D3678 and ASTM D4216 with the following manufacturing and product specifications.

Test Criteria: Typical Properties

Tensile Strength (ASTM D638): 7000 psi

Modulus of Elasticity ASTM D638): 400,000 psi

Izod Impact @70° F (ASTM D 256): 4.20 lb./in. notch

Izod Impact @32° F (ASTM D 256): 2.40 lb./in. notch

Deflection Temperature with 264 psi load (ASTM D648): 175° F (79.4° C)

- C. **Fire Resistance Properties:**

Average Time of Burning (ASTM D635) : <5 sec

Average Extent of Burning (ASTM D635) : <5 mm

Flame Spread Index (ASTM E84): 5

Smoke Developed Index (ASTM E84): 700

Fuel Contribution (ASTM E-84): 0

Smoke Density (ASTM D2843) : <50%

Ignition Properties (ASTM D1929): Self ignition did not occur. At 824° F sample began to smolder and continued until consumed.

- D. **Typical Physical Properties:**

Test Criteria: Typical Properties

Warp (ASTM D3679) : <0.125 in

Heat Shrinkage (ASTM D3679) : <1.9%

Impact Resistance (ASTM D4226):

2.36 in/mil (Procedure A, H.25)

Coefficient of Linear Expansion (ASTM D3679):

3.00×10^{-5} in/in °F / 5.10×10^{-5} cm/cm °C

- E. **Dimensions and Description:**

1/2" I-Span Panel: single panel profile, 16in. exposure; 8, 10, 12 and 16ft length. Nail hem thickness 0.040"±0.002".

Nail slots: 0.250" wide by 0.875" long. Surface texture is smooth; White color.

3/8" I-Span Panel: single panel profile, 12in. exposure; 8, 10, 12 and 16ft length. Nail hem thickness 0.039"±0.002".

Nail slots: 0.250" wide by 0.875" long. Surface texture is smooth; White color.



I-span Wall panel Specifications

2.01 Accessories:

- A. 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 panel.

2.02 Fasteners:

- A. Galvanized nails or other corrosion-resistant fasteners, with a minimum 11/32 in. diameter head and minimum 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 I-span panel installation implies acceptance of the substrate as suitable to accept I-span panel and accessories.

3.02 Preparation

- A. Any substrate flaws or defects must be repaired and free from obstructions before the I-span panel is applied.

3.03 Installation

- A. I-span panel is installed with fasteners into solid backing a maximum of 24 in. on center. The fasteners must be corrosion resistant with a minimum 5/16 in. diameter head and minimum 1/8 in. diameter shank.
- B. Fasteners must penetrate solid backing a minimum of 7/8 in.
- C. All panels should be allowed to slide free after fastening to allow for expansion and contraction.

3.04 Field Quality Control

- A. After installation of I-span panel check entire surface for obvious flaws or defects. Replace and repair any problem areas.

3.05 Cleaning

- A. After the I-span panel 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.

All KAYCAN I-span panels and accessories are backed by Limited Lifetime Warranty.