

## Part I—GENERAL

### 1.1 Section Includes

A. KONG PVC Trim Boards and Mouldings is cellular PVC used for corner boards, soffits, fascias, battens, door pilasters, frieze boards, rake boards, architectural millwork and window/door trim.

### 1.2 References

- A. AATC127 – Water Resistance
- B. ASTM C177 – Thermal Conductivity
- C. ASTM D256 – Izod Impact Resistance
- D. ASTM D570 – Water Absorption of Plastics.
- E. ASTM D635 – Burn Rate
- F. ASTM D648 – Heat Deflection Temperature
- G. ASTM D696 – Coefficient of Linear Thermal Expansion
- H. ASTM D792 – Density and Specific Gravity of Plastic by Displacement
- I. ASTM D1761 – Fastener Pull Through
- J. ASTM D3345 – Termite Resistance
- K. ASTM D6662 – Freeze-Thaw Resistance
- L. ASTM E84 – Surface Burning Characteristics
- M. ASTM G155 – Accelerated Weathering

### 1.3 Submittals

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit product data, product sheet, for specified products.
- C. Samples: Submit verification samples for each profile specified, minimum 6 inches (150 mm) long, representing actual product and finish.

### 1.4 Quality Assurance

- A. Regulatory Requirements: Check with Local Building Code for installation requirements.
- B. Allowable Tolerances:
  - 1. Variation in component length: - 0.00 / + 7/8"
  - 2. Variation in component Width: - 0 / + 1/16"
  - 3. Variation in component thickness:  $\pm 5\%$
  - 4. Variation in component edge:  $\pm 2^\circ$
  - 5. Density range: .57
  - 6. Shore-D hardness: 40-45
- C. Workmanship, Finish, and Appearance:
  - 1. KONG PVC Trim Boards and Mouldings are a free foam cellular PVC that is free of excessive voids, holes, cracks, and other defects. The edges must be square and top and bottom surfaces shall be flat with no convex or concave deviation.
  - 2. surface free from cupping, warping and twisting.

### 1.5 Delivery, Storage and Handling

A. Store products on a flat and level surface on a shipping pallet. Handle materials to prevent damage to product edges and corners. Store under provided protective covering to prevent dirt and residue from collecting on the boards.

### 1.6 Warranty

- A. Limited lifetime warranty against defects in manufacturing that cause products to rot, corrode, delaminate or excessively swell from moisture.



Part II—PRODUCTS

**2.1 Materials**

- A. Material: free foam cellular PVC material with small cell microstructure and an average density of .57 grams/cm<sup>3</sup>.
- B. Materials shall have a minimum physical and performance properties specified in section B of this document.
- C. Performance and physical characteristic requirements:

<b>TEST</b>	<b>TEST METHOD</b>	<b>TYPICAL PROPERTY</b>
Density, g/cm <sup>3</sup> .....	ASTM D792 .....	0.57
MOR (Flexural Strength), psi .....	ASTM D790.....	3,600.0
MOR (Flexural Modulus), psi .....	ASTM D790.....	144,000.0
Weathering		
MOR Change, % .....	ASTM G155 & D790.....	+2.4%
MOE Change, % .....		+0.7%
Freeze-Thaw		
MOR Change, % .....	ASTM D6662 & D790.....	+0.1%
MOE Change, % .....		+0.9%
Water Resistance.....	ASTM D570 & AATCC 127 .....	No Penetration
Water Absorption, 24 hrs, % .....	ASTM D570.....	<0.5%
Termite Resistance .....	ASTM D3345.....	9.2
Surface Burning, Flame Spread Index.....	ASTM E84 .....	25
Burning Rate .....	ASTM D635.....	No burn when flame removed
Negative Transverse Wind Load, psf .....	ASTM E330 .....	72
Gardener Impact Resistance, in-lbf.....	ASTM D5420.....	.629 (3/4" thick trim)
Coefficient of Linear Thermal Expansion, °F <sup>-1</sup> .....	ASTM D696.....	3.5 x 10 <sup>-5</sup>
Heat Deflection Temp., °F @ 264 psi .....	ASTM D648 .....	146
Izod Impact, Notched, ft-lb/in .....	ASTMD256 .....	0.37
Heat Conductivity, btu-in/hr-ft <sup>2</sup> -°F .....	ASTM C177 .....	0.50



## Part II—PRODUCTS (continued)

### 2.2 Available Dimensions & Sizes

#### A. Trim Board

Nominal	Actual	Length
1" x 4"	3/4" x 3-1/2"	18'
1" x 6"	3/4" x 5-1/2"	18'
1" x 8"	3/4" x 7-1/4"	18'
1" x 10"	3/4" x 9-1/4"	18'
1" x 12"	3/4" x 11-1/4"	18'

Nominal	Actual	Length
5/4" x 4"	1" x 3-1/2"	20'
5/4" x 6"	1" x 5-1/2"	20'
5/4" x 8"	1" x 7-1/4"	20'
5/4" x 10"	1" x 9-1/4"	20'
5/4" x 12"	1" x 11-1/4"	20'

#### B. Corner Board

Nominal	Actual	Length
5/4" x 4"	1" x 3-1/2"	20'

Nominal	Actual	Length
5/4" x 6"	1" x 5-1/2"	20'

#### C. Sheets

Thickness	Width	Length
3/8"	4'	8'
1/2"	4'	8'
3/4"	4'	8'

Thickness	Width	Length
3/8"	4'	10'
1/2"	4'	10'
3/4"	4'	10'

#### D. Crown Mouldings

Nominal	Actual	Length
3.5'	9/16"x3-5/8"	18'
4.5'	5/8"x4-5/8"	18'
5.5'	9/16"x5-1/2"	18'

#### E. J-Channel

Nominal	Actual	Length
5/4" x 4"	1" x 3-1/2"	18'

#### F. Bead Board / Shiplap

Thickness	Width	Length
1/2"	5-1/8"	18'

## Part III—EXECUTION

### 3.1 Installation

#### CUTTING

- Use standard wood working equipment for cutting.
- Jagged edge from cutting may be caused by excessive friction, poor board support, or improper tooling.

#### DRILLING

- Drill with standard woodworking drill bits.
- Avoid frictional build-up and remove shavings from the drill hole frequently as necessary.

#### FASTENING

- Use nail guns/wood working tools.
- Stainless steel or hot-dipped galvanized nails/screws to fasten
- Do not use brads, staples, wire nails or fine-threaded wood screws.
- Place nails and screws on center of board and keep approximately 3/4" from each edge.
- Fasteners should penetrate into flat, solid wood substrate or framing member a minimum of 1-1/2"
- Fasteners must be installed within 2" of the end of each board.

#### MILLING & MOULDING

- Simulated wood trim can be milled or moulded using standard milling or moulding
- machines found in millwork shops.
- Rake angle 20 to 30 degrees. 25 degrees is recommended.
- Cutting speed to be optimized with the number of knives and feed rate.

#### PAINTING

- KONG Trimboards do not require paint for protection, but accept and hold paint very well.
- Clean surface prior to painting.
- Follow paint manufacturer's recommendations.
- If you choose to paint, use a 100% acrylic latex paint with colors having a Light Reflective Value (LRV) of 55 or higher.
- For darker colors (LRV of 54 or lower), use paints specifically formulated for use on vinyl/pvc products.
- Acrylic or urethane based latex exterior or interior paints are recommended.

#### GLUING/Touch Up

- For the best result, use Extreme Adhesives to glue all joints between trim pieces such as long fascia runs, window surrounds, etc., to prevent joint separation.
- Glue joints should be secured with fasteners on each side of the joint.

#### TOUCH UP

- Clean with a damp cloth with soap and water.
- Use Extreme Adhesives nail sticks on unpainted allocations.
- Use Fill n Flex for unpainted caulking applications.

#### MOISTURE

- KONG Trimboards do not absorb moisture, and can be installed at or below grade.

#### EXPANSION & CONTRACTION

- KONG Trimboards expand and contract with changes in temperature. Allow 1/8" space per 18 foot for expansion and contraction. Joints between pieces should be glued to eliminate joint separation — see "Gluing" section.
- Properly fastening KONG Trimboards along entire length will minimize expansion and contraction.
- 3/8" and 1/2" sheet product is not intended to be ripped into trim pieces. These profiles must be glued to a substrate and mechanically fastened.
- When gaps are glued on a long run of the board, allow suitable expansion and contraction space at ends of the run.

#### STORAGE AND HANDLING

- Store on a flat and level surface.
- Should be handled in a fashion as pine, because it has a density comparable to pine with more flexibility.
- Keep product free of dirt and debris

#### CLEANING

- KONG Trimboards may be cleaned with denatured alcohol, mild detergent or soap and water. Other household cleansers may be used but should be tested in an inconspicuous area before use.



## Part III—EXECUTION (continued)

### 3.2 Heat Bending

KONG PVC Trim can be easily heated and bent into a variety of shapes. More time and money is spent when constructing the same shapes from wood, wood composite, plywood, and engineered wood products. Wood products must be routed, sanded, glued and finish coated to get the same results.

Some specific tools and equipment are required when bending KONG PVC Trim. These includes hot air circulation ovens, band heaters, heating blankets or radiant heaters. Determining which equipment is right for your project depends on the shape, area, thickness and quantity.

#### Safety Warnings and Guidelines:

1. Bent material must be evenly headed.
2. We recommend heat of approximately 280°F, but not to exceed 320°F. If band heaters or heating blankets are used, a lower temperature approximately 250°F is recommended due to direct heat contact with the board.
3. Heat 3/4" x 3-1/2" KONG PVC Trim for approximately 10 minutes in ovens or 15 minutes if using heat blankets (approximately 3 minutes per 1/4" thickness). Heating time should be adjusted according to the following conditions:
  - Thickness, width and length of board
  - Heating equipment and its capacity
4. Once the heated board reaches a workable state (flexible enough to bend), bend it to the proper mold and hold it in place with clamps for best results. Cool the bent product to room temperature with natural or forced air.
5. Indications of overheating are rough surfaces, bubbling, discoloration and yellowing.
6. Always handle with care and wear heat protection gloves during the process. Refer to our materials safety data sheet for material handling specifications.



Strong.  
Durable.  
Respected.

# MATERIAL SAFETY DATA SHEET

## MANUFACTURER

PVC Solutions  
51 Sugar Hollow Road, Danbury CT 06810  
Tel: (203) 733-0932  
Emergency: 203-733-0932 (Dany Letourneau)

## 1. PRODUCT IDENTIFICATION

Product Name ..... PVC Sheet  
Product Code ..... KONG PVC Trim  
Chemical Family..... Polymer of Chlorinated Hydrocarbon  
Chemical Name..... Polyvinyl Chloride  
CAS No. .... 9002-86-2  
Synonyms..... Expanded Foam PVC Sheet, Integral Skin Expanded Foam PVC Sheet,  
Celuka PVC Sheet, Wood/PVC Composite Sheet  
Formula ..... Proprietary

## 2. PRODUCT INGREDIENTS

No.	Components	CAS No.	Percent (%)	OSHA PEL
1.	PVC.....	9002-86-2	50 - 100%	5 mg / M3 (respirable dust)
2.	Proprietary.....	Mixtures	0 - 50%	Not established

## 3. PHYSICAL / CHEMICAL PROPERTIES

Physical Form..... Solid Sheet  
Color ..... Finished sheet with colors specified  
Odor ..... Insignificant  
Boiling Point ..... Not applicable  
Melting Point..... Not established  
Freezing Point ..... Not applicable  
Solubility in Water..... None  
Specific Gravity ..... 0.4 - 2.0 (water = 1)  
Vapor Density ..... Not applicable (air = 1)  
Evaporation Rate..... None (Butyl Acetate = 1)  
Vapor Pressure ..... Not applicable  
% Volatile ..... None  
pH..... Not applicable

The physical data presented above are typical values and should not be construed as a specification.

## 4. FIRE HAZARD DATA AND FIGHTING METHOD

Flash Point ..... Not applicable  
Auto ignition..... Not applicable  
Flammable Limits ..... Not applicable  
In Air (LEL,%) ..... Not applicable  
(UEL, %)..... Dry chemical, foam water, or carbon dioxide  
Special Fire Fighting Procedure ..... In the event of a fire, wear NIOSH approved, positive pressure, self-contained breathing apparatus (SCBA) and full protective clothing. Evacuate all personnel from danger area. Use dry chemical, foam, water or carbon dioxide to extinguish fire.  
Unusual Fire & Explosion Hazards..... This product is nonflammable and nonexplosive under normal conditions of use. It will not continue to burn after ignition without an external fire source. When forced to burn, the major gaseous products of the combustion of PVC are carbon monoxide, carbon dioxide, and hydrogen chloride.





Strong.  
Durable.  
Respected.

# MATERIAL SAFETY DATA SHEET

## 14. FEDERAL REGULATORY INFORMATION

OSHA Status ..... Not listed  
 EPA Clean Air Act Status ..... Not listed  
 EPA Clean Water Act Status..... Not listed  
 TSCA Status..... PVC is listed on TSCA Inventory (40CFR710)  
 CERCLA RQ ..... CERCLA RQ: Not listed

### SARA Title III PVC

Section 302\* ..... None  
 Section 313\*\* ..... None  
 Section 311 / 312\*\*\* ..... None

\* Reportable quantity of extremely hazardous substance, Sec. 302  
 \* Threshold planning quantity, extremely hazardous substance, Sec. 302  
 \*\* Toxic chemical. Sec. 313  
 \*\* Category as required by Sec 313 (40CFR372.65C). Must be used on Toxic Release Inventory form.  
 \*\*\* Hazard category for SARA Sec.311/312 reporting H1=acute health hazard, H2=chronic health hazard, P3=fire hazard,P4=sudden release of pressure hazard, P5=reactive hazard

### RCRA Status:

The product is not an RCRA hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material containing the product or derived from the product should be classified as a hazardous waste (40CFR261.20-24).

### Other Regulatory Information:

The following chemicals are specifically listed by individual states; other product-specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements, you should contact the appropriate agency in your state.

## 15. OTHER INFORMATION

NFPA..... HMIS  
 Fire - 1 ..... Health - 0  
 Health - 0 ..... Flammability - 1  
 Reactivity - 0..... Reactivity - 0  
 Specific Hazard—none..... Personal Protection Index - E