Part I—GENERAL

1.01 Section Includes
   A. WOLF 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.

1.02 Related Sections
   A. Section 06 64 00 – Plastic Paneling.
   B. Section 06 65 00 – Plastic Simulated Wood Trim.
   C. Section 06 66 00 – Custom Ornamental Simulated Woodwork.

1.03 References
   A. AATC127 – Water Resistance
   B. ASTM C177 – Thermal Conductivity
   C. ASTM D256 – Izod Impact Resistance
   E. ASTM D635 – Burn Rate
   F. ASTM D648 – Heat Deflection Temperature
   G. ASTM D696 – Coefficient of Linear Thermal Expansion
   I. ASTM D792 – Density
   J. ASTM D1761 – Fastener Pull Through
   K. ASTM D3345 – Termite Resistance
   L. ASTM D5420 – Gardner Impact Resistance
   M. ASTM D6662 – Freeze-Thaw Resistance
   N. ASTM E84 – Surface Burning Characteristics
   O. ASTM E330 – Uplift Resistance
   P. ASTM G155 – Accelerated Weathering
   Q. AWPA E12 – Corrosion by Treated Wood

1.04 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, manufacturer’s catalogs, SPEC-DATA® product sheet, for specified products.
   C. Samples: Submit three material samples representative of the texture, thickness and widths shown and specified herein.

1.05 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: ± 5%
      4. Variation in component edge: ± 2°
      6. Density range: .58–.62
      7. Shore-D hardness: 45
   C. Workmanship, Finish, and Appearance:
      1. WOLF PVC Trim Boards and Mouldings are a free foam cellular PVC that is homogeneous and free of excessive voids, holes, cracks, foreign inclusions and other defects. The edges must be square and top and bottom surfaces shall be flat with no convex or concave deviation.
      2. Uniform surface free from cupping, warping and twisting.
Part I—GENERAL (continued)

1.06 Delivery, Storage and Handling
A. Materials should be stored on a flat and level surface on a full shipping pallet. Handle materials to prevent damage to product edges and corners. Store under provided protective covering to prevent jobsite dirt and residue from collecting on the boards.

1.07 Warranty
A. Provide manufacturer’s limited lifetime warranty against defects in manufacturing that cause products to rot, corrode, delaminate or excessively swell from moisture.

Part II—PRODUCTS

2.01 Materials
A. Material: free foam cellular PVC material with small cell microstructure and an average density of .60 grams/cm\(^3\).

a. Materials shall have a minimum physical and performance properties specified in section B of this document.

B. Performance and physical characteristic requirements:

<table>
<thead>
<tr>
<th>TEST</th>
<th>TEST METHOD</th>
<th>TYPICAL PROPERTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density, g/cm(^3)</td>
<td>ASTM D792</td>
<td>0.60</td>
</tr>
<tr>
<td>MOR (Flexural Strength), psi</td>
<td>ASTM D790</td>
<td>3,600.0</td>
</tr>
<tr>
<td>MOR (Flexural Modulus), psi</td>
<td>ASTM D790</td>
<td>144,000.0</td>
</tr>
<tr>
<td>Weathering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOR Change, %</td>
<td>ASTM G155 &amp; D790</td>
<td>+2.4% (Pass ICC AC227)</td>
</tr>
<tr>
<td>MOE Change, %</td>
<td></td>
<td>+0.7%</td>
</tr>
<tr>
<td>Freeze-Thaw</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOR Change, %</td>
<td>ASTM D6662 &amp; D790</td>
<td>+0.1% (Pass ICC AC227)</td>
</tr>
<tr>
<td>MOE Change, %</td>
<td></td>
<td>+0.9%</td>
</tr>
<tr>
<td>Water Resistance</td>
<td>ASTM D570 &amp; AATCC 127</td>
<td>No Penetration (Pass ICC AC227)</td>
</tr>
<tr>
<td>Water Absorption, 24 hrs, %</td>
<td>ASTM D570</td>
<td>&lt;0.3%</td>
</tr>
<tr>
<td>Termite Resistance</td>
<td>ASTM D3345</td>
<td>9.2 (Pass ICC AC227)</td>
</tr>
<tr>
<td>Surface Burning, Flame Spread Index</td>
<td>ASTM E84</td>
<td>25</td>
</tr>
<tr>
<td>Burning Rate</td>
<td>ASTM D635</td>
<td>No burn when flame removed</td>
</tr>
<tr>
<td>Mechanical Fastener, Allowable Load, lbf</td>
<td>ASTM D1761</td>
<td>151 (8d nail and 1” thick trim)</td>
</tr>
<tr>
<td>Negative Transverse Wind Load, psf</td>
<td>ASTM E330</td>
<td>72</td>
</tr>
<tr>
<td>Gardener Impact Resistance, in-lbf</td>
<td>ASTM D5420</td>
<td>629 (3/4” thick trim)</td>
</tr>
<tr>
<td>Coefficient of Linear Thermal Expansion, °F(^-1)</td>
<td>ASTM D696</td>
<td>3.5 x 10(^{-5})</td>
</tr>
<tr>
<td>Heat Deflection Temp., °F @ 264 psi</td>
<td>ASTM D648</td>
<td>146</td>
</tr>
<tr>
<td>Corrosion by Preservative Treated Wood</td>
<td>AWAP E12</td>
<td>No Wt. Loss (Pass ICC AC227)</td>
</tr>
<tr>
<td>Izod Impact, Notched, ft-lb/in</td>
<td>ASTM D256</td>
<td>0.37</td>
</tr>
<tr>
<td>Heat Conductivity, btu-in/hr-ft(^2)-°F</td>
<td>ASTM C177</td>
<td>0.50</td>
</tr>
</tbody>
</table>
Part III—EXECUTION

3.01 Installation

**CUTTING**
- Use standard wood working equipment for cutting.
- Carbide tipped blades are recommended.
- Avoid using fine tooth metal cutting blades.
- Rough edge from cutting may be caused by excessive friction, poor board support, or improper tooling.

**FASTENING**
- Use standard nail guns/wood working tools.
- Stainless steel or hot-dipped galvanized nails/screws are recommended.
- 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".
- If nailing product at 32°F or below, pre-drilling is required.
- Pre-drilling and/or counter-sink are typically not required unless a larger fastener is used.
- As with wood, use 2 fasteners per every framing member for trimboard applications. Trimboards 12" or wider, as well as sheets, will require additional fasteners not to exceed 8" on center.
- Fasteners must be installed within 2" of the end of each board.

**PAINTING**
- WOLF 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.
- Prior to painting, exterior sandable spackle is recommended for filling nail holes.

**DRILLING and ROUTING**
- Use standard wood working drills and routers.
- Care should be taken to avoid frictional heat build-up.
- Periodic removal of shaving from the drill hole may be necessary.
- Carbide tipped router bits are recommended.
- If nailing products at 32° F or below, pre-drilling is required.

**MOISTURE**
- WOLF Trimboards do not absorb moisture, and can be installed at or below grade.
- It is perfect for use in moisture prone applications such as ground contact, masonry contact, hot tub surrounds, freeze boards, rooflines and garage door jambs, etc.

**EXPANSION & CONTRACTION**
- WOLF 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 WOLF 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.
- Scarf joints are recommended to minimize seams and allow expansion and contraction.
- Construction adhesive is recommended to reduce expansion and contraction between trim and substrate.

**SPANNING**
- Never span WOLF Trimboards more than 24".
- Must not be used in load bearing applications, but may be used in spanned applications such as soffits and ceilings, with suitable thickness.
- When using 1/2" WOLF Trimboard Beadboard, use 12" OC framing as well as use a high quality construction grade polyurethane adhesive on joists.
- For spans greater than 12" OC, use 5/8" WOLF Trimboard Beadboard, or use a minimum 1/2" backer such as plywood or OSB with construction grade adhesive and mechanical fastening a minimum of every 8". Fasteners should hit joist or framing when possible.

**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.

**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**
- WOLF 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.
3.02 Heat Bending

WOLF 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 WOLF 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 270°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” WOLF 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.
1. PRODUCT IDENTIFICATION

Product Name ........................................ PVC Sheet
Product Code ......................................... WOLF 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
Technical Information ............................. 361.874.3760

2. PRODUCT INGREDIENTS

<table>
<thead>
<tr>
<th>No.</th>
<th>Components</th>
<th>CAS No.</th>
<th>Percent (%)</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>PVC</td>
<td>9002-86-2</td>
<td>50 - 100%</td>
<td>5 mg / M3 (respirable dust)</td>
</tr>
<tr>
<td>2.</td>
<td>Proprietary</td>
<td>Mixtures</td>
<td>0 - 50%</td>
<td>Not established</td>
</tr>
</tbody>
</table>

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.
5. HUMAN HEALTH DATA

Emergency Overview: During a fire emergency, avoid inhalation, eye and skin contacts.

Primary Routes(s) of Exposure: Inhalation, Eye, Skin Contact.

Potential Health Effects and Symptoms of Over-Exposure:
- **Eye Contact**: Dust may cause eye irritation.
- **Skin Contact**: May cause skin irritation.
- **Inhalations**: May cause discomfort in nose and throat.
- **Ingestion**: Unlikely.

Medical Conditions Aggravated by Over-Exposure:
Available toxicological information and the physical/chemical properties of the material suggest that there is no evidence that this product aggravates an existing medical condition.

Carcinogenicity: NTP: No, IARC: No, OSHA: No.

6. FIRST AID MEASURES

- **Eye Contact**: Immediately flush eyes with water for at least 15 minutes. Do not rub the eyes. If irritation develops, consult a physician.
- **Skin Contact**: Wash affected skin areas with soap and water. If irritation develops, get medical attention immediately.
- **Inhalation**: Remove subject to fresh air. If symptoms develop, seek immediate medical attention.
- **Ingestion**: Unlikely.

Notes to Physician: Treat symptomatically and supportively.

Other Instructions: Never give anything by mouth to an unconscious person.

7. EXPOSURE CONTROLS, PERSONAL PROTECTION RECOMMENDATIONS

- **Eye Protection**: Wear safety glasses during sheet cutting or fabricating process.
- **Skin Protection**: Wear gloves and long sleeved clothing when cutting or fabricating sheets.
- **Respiratory Protection**: Use NIOSH/MAHA approved dust respirators as needed.
- **Engineering Controls**: Ventilation Requirements – Local Exhaust.
- **Required Work Hygiene Procedure**: Do not eat, drink, or smoke in work area. Wash hands thoroughly after handling, especially before eating, drinking, smoking, chewing, or using restroom facility.

**Exposure Guidelines**

<table>
<thead>
<tr>
<th>No.</th>
<th>Components</th>
<th>OSHA PEL</th>
<th>ACGIH-TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PVC</td>
<td>5 mg / M3 (respirable dust)</td>
<td>10 mg / M3 (nuisance dust)</td>
</tr>
</tbody>
</table>

8. ACCIDENTAL RELEASE CONTROL MEASURES

Response to Spills: Not Applicable.

9. HANDLING AND STORAGE

- **Handling**: Use with care. Wear gloves if necessary when cutting or fabricating.
- **Storage**: Store in a cool, dry, well-ventilated area away from sources of extreme heat or fire.
- **Container Use**: Not Applicable.

10. STABILITY AND REACTIVITY

- **Stability**: Stable.
- **Conditions to Avoid**: Avoid fire or elevated temperature above 250° F.
- **Hazardous Decomposition**: If burned, it will generate carbon dioxide, carbon monoxide and hydrogen chloride.
- **Hazardous Polymerization**: Will not occur.

11. DISPOSAL CONSIDERATIONS

Disposal Method: It must be disposed of in accordance with Federal, State and local environmental control.

Recycle / Reclaim: Recycling of PVC product should be encouraged where possible.
12. TRANSPORT INFORMATION

DOT Shipping Name ............................. Not listed
DOT Label ........................................ Not applicable
DOT Hazard Class .............................. Not regulated
UN / NA Number ............................... Not applicable
Hazard Label(s) ................................. Not applicable

Hazard Placard(s) ............................ Not applicable
Packing Group ................................ Not applicable
Bulk Packaging ............................... Not applicable
RQ ................................................... Not applicable
Emerg. Response Guide (ERG) No. ...... Not applicable

13. TOXICOLOGICAL INFORMATION

The information provided below can be subject to misinterpretation. Therefore, it is essential that the following information be interpreted by individuals trained in its evaluation.

Chemical Toxicity Data

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Toxicity Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC ......</td>
<td>orl-rat TDLo: 210 g/kg/30WK-ETA</td>
</tr>
</tbody>
</table>

14. ECOLOGICAL INFORMATION

No data is available on the adverse effects of this product on the environment. Neither COD nor BOD data are available.

15. 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 (40 CFR710)
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
*** Category as required by Sec 313 (40CFR372.65C). Must be used on Toxic Release Inventory form.

EPA Clean Air Act Status .................... Not listed
EPA Clean Water Act Status ................. Not listed
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.

<table>
<thead>
<tr>
<th>State</th>
<th>Chemical</th>
<th>Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>PVC .....</td>
<td>Effects Screening Level (ESL) List: short term 50 ug/M3; long term 5 ug/M3</td>
</tr>
<tr>
<td>California</td>
<td>Propris 65: warning – this product contains a chemical, residual VCM, known to the state of California to cause cancer</td>
<td></td>
</tr>
</tbody>
</table>

Product Name: PVC Sheet

International United Kingdom Occupational Exposure Standards: TWAs total inhalable dust 10 mg/M3 TWA;
Respirable dust 5mg/M3
Germany MAK Value: fine dusts 5 mg/M3 MAK

16. OTHER INFORMATION

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