

Technical Data Sheet (TDS)

Product Name: Roller Coated Solid Panel

Product Description:

This product is a high-quality roller-coated aluminum panel treated with a PVDF coating for excellent weather resistance, corrosion resistance, and long-lasting color stability, specifically designed for exterior curtain wall applications. The standard thickness is 3mm, suitable for most architectural needs, with 4mm and 6mm options available for higher strength requirements. Standard widths are 1250mm and 1500mm, and standard length is 3050mm, with custom sizes available upon request.

Specifications:

- A. **Thickness:** Standard 3mm; 4mm and 6mm available for high-strength requirements
- B. **Standard Widths:** 1250mm and 1500mm
- C. **Standard Length:** 3050mm (customizable upon request)
- D. **Surface Coating:** PVDF coating (customizable colors and patterns)

Surface Colors and Patterns:

- A. **Standard Colors:** Various solid and metallic colors suitable for modern architectural styles
- B. **Decorative Patterns:** Wood grain, stone patterns, and other decorative options available
- C. **Customization:** Custom colors and patterns available to meet diverse design requirements

Features and Advantages:

- A. **Weather Resistance:** The PVDF coating offers excellent UV resistance, corrosion resistance, and acid/alkali durability, suitable for long-term outdoor use.
- B. **High-Strength Options:** 4mm and 6mm thickness options enhance wind resistance and impact strength, meeting higher structural requirements.
- C. **Customizable Dimensions:** Standard dimensions facilitate installation, with custom sizes available to provide greater design flexibility.
- D. **Varied Aesthetic Options:** Multiple color and pattern options (e.g., wood and stone patterns) enhance the architectural appearance.
- E. **Low Maintenance:** Smooth surface with strong anti-pollution properties, ideal for building facades with low maintenance requirements.

Physical Properties:

- A. **Bending Strength:** ≥ 150 MPa (depending on thickness)

- B. **Tensile Strength:** ≥ 200 MPa (3mm thickness); higher tensile strength for thicker panels
- C. **Coefficient of Thermal Expansion:** Approximately $23-24 \times 10^{-6} / ^\circ\text{C}$ (aluminum properties)
- D. **Coating Thickness:** 25-30 microns (PVDF coating)

Processing Methods:

- A. **Saw Cutting:** Compatible with standard equipment for precise size adjustments.
- B. **Milling:** Smooth surface finishing, enabling complex graphic designs, suitable for decorative purposes.
- C. **Bending and Forming:** Can be bent into various shapes, allowing for diverse curtain wall designs.
- D. **Grooving and Folding:** Similar to aluminum composite panels, facilitating complex bends and molded designs.
- E. **Drilling:** Suitable for creating installation holes, offering flexibility for curtain wall installation.

Applications:

- A. Architectural exterior curtain walls and facade decoration
- B. Exterior cladding for large structures such as commercial buildings, hotels, and airports
- C. Decorative partitions, screens, and railings for outdoor use
- D. Other architectural applications requiring high weather resistance and aesthetic appeal

Storage and Handling:

- A. Store in a dry, ventilated environment, avoiding direct sunlight and moisture.
- B. Handle with care during transportation and installation to prevent surface scratches and damage.

Notes:

- A. Customizable to specific needs, including color, pattern, thickness, and size, suitable for diverse design applications.
- B. Supports a variety of processing methods to meet different architectural and installation requirements.