

## Technical Data Sheet (TDS)

**Product Name:** Special Steel Composite Panel

### Product Description:

This 0.3/3mm steel composite panel is designed with a premium paint-coated galvanized steel layer laminated onto an LDPE core, combining light weight with high strength. It offers excellent magnetic properties and a writable whiteboard surface, making it ideal for whiteboard applications. An additional version supports UV printing, tailored for the advertising market. With its self-supporting capability, this panel maintains surface flatness and can be used independently without a backing support material. The composite structure inherits the impact resistance and high strength of steel, while remaining easy to handle.

### Specifications:

- **Total Thickness:** 3mm
- **Steel Panel Thickness:** 0.3mm
- **Core Material:** Plastic (typically LDPE or other specified material)
- **Color:** White

### Features and Advantages:

- **Magnetic Properties:** Ideal for applications requiring magnetic functionality, such as whiteboards.
- **Writable Surface:** Supports direct writing, making it suitable for whiteboard use.
- **UV Printing Compatibility:** Available in a variant with UV-printable surface, optimized for advertising applications.
- **High Bending Strength:** Achieves a bending strength of  $\geq 250$  MPa, meeting rigorous structural demands.
- **Self-Supporting Structure:** The high strength and lightweight core enable flat, stable surfaces without additional support, perfect for standalone installations.
- **Impact Resistance:** Retains the steel's inherent impact resistance, ensuring durability in demanding environments.

- **Lightweight Design:** Easier to handle and install compared to solid steel panels, with the same durability and strength.
- **Environmentally Friendly:** Non-toxic core material and eco-friendly coatings make it suitable for sustainable building designs.

### Physical Properties:

- **Density:** Approximately 6.5-7.0 kg/m<sup>2</sup> (based on core material)
- **Bending Strength:**  $\geq 250$  MPa (providing self-supporting capability for independent use)
- **Tensile Strength:** Approximately 250-400 MPa (steel layer)
- **Impact Resistance:**  $\geq 3.5$  J
- **Coefficient of Thermal Expansion:** Approximately  $12-14 \times 10^{-6} / ^\circ\text{C}$

### Applications:

- Whiteboards and other magnetic surfaces
- Standalone wall panels and cladding
- Advertising boards and displays (UV-printable variant)
- Interior and exterior wall cladding
- Industrial and decorative panels

### Storage and Handling:

- Store in a dry, ventilated environment, avoiding direct sunlight and high humidity.
- Handle with care to prevent damage to the surface finish, ensuring optimal product performance.

### Notes:

- Customizable options available, including thickness, color, and surface treatment.
- Suitable for a variety of processing techniques, such as cutting, drilling, and bending, making it adaptable to various design and installation needs.