



## **BioSet Composite Panels**

## **Specifications Technical Data Sheet**

### **Manufacturer:**

ColorSet Composites  
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Las Vegas, NV 89119  
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### **Product Composition:**

UV cure thermoset Polyurethane ink is digitally printed onto custom formulated B-stage (uncured) thermoset polyurethane resin that has been coated onto reusable textured casting release film. The printed B-stage film is placed in a panel mold with rapidly renewable reinforcement and core material. Modified, rapidly renewable Bio-based resin is infused into the mold via positive pressure and vacuum assisted Resin Infusion (RFI & VARTM). The infusion resin and the printed b-stage polyurethane film combine creating a monolithic resin panel. The exothermic reaction of the infusion resin generates heat-approaching 270°F (130°C) which starts the curing process. A heated table continues heating the mold at the same temperature after the exothermic reaction to post cure the panel insuring maximum cure. Molding to size or common cut computer routing of ganged panels is used to nearly eliminate waste and process consumables are nearly eliminated by using reusable high volume RTM molds and connectors.

### **Recommended Uses:**

ColorSet Composites – BioSet Composite panel product is suitable for use in museums, zoos, parks and wildlife parks, municipal applications, hiking trails, parking garages, swimming pool areas, murals, and many more.

### **Panel Thickness Options:**

#### **0.040"**

Typical vertical uses include surfacing for wall panels, murals, teller cages and the front panels of workstations, such as those in hospitals, airports and restaurants. 0.040 is produced for both horizontal and vertical applications where the surface must be functional, durable and decorative. The back-side is sanded to facilitate bonding and must be adhered to a suitable substrate. 0.040" is most frequently used for work surfaces on counters, islands, vanities, desks and tables.

#### **0.090"**

The 0.090 is a National Parks standard for the NPS frames. These laminates need to be mechanically fixed with screws, frames, etc. 0.90" is most frequently used for reader rails, interpretive graphics, murals, way finding, and directional panels.



### **0.125" and 0.25"**

These panels need to be mechanically fixed with screws, frames, etc., are most frequently used for double sided flip-books, way finding, interpretive graphics, murals, and directional panels.

### **0.500" and 0.75"**

Is self-supporting with standard black back or optional custom color backing (i.e. NPS brown or Forest Service green etc.). This thickness is most used in areas where freestanding elements and shaped panels are required. Can be produced double-sided. May be drilled and tapped to accept a 1/4"- 20 bolt for mounting, or drilled through for mounting from the front. Mostly used in exterior applications where durability is needed.

### **Standard Finishes:**

- MATTE: This fine grain premium finish features, a subtle, narrow grain structure with low glare.
- DUREX: A more prominent grain Matte texture that minimizes smudges and finger marks and improves scratch resistance.

### **Optional Finishes:**

- SATIN: A textured finish reproduces a high sheen
- GLOSS: A High Gloss finish
- WOOD GRAIN: Oak style wood grain
- OTHER: provided by PDF file on request

### **Finish Availability:**

All ColorSet Composites – BioSet panels can be used for exterior and interior applications with any finish option you choose.

### **Sheet and Panel Sizes:**

Maximum single image area is 48" x 96". Images larger than 48" x 96" can be custom ordered. Panels larger than 54" x 142" can be tiled with index-cut seams.