

## **Bio/CR-2B** GridLock® Panel (walls and ceilings)

### **General Description:**

The Bio/CR-2B panel is part of the GridLock Biocontainment /Clean Room product line. The panel is 1/4 inch thick and is made of an aggregate of components made of polymer, metal and fiberglass composite that form an economical composite wall panel. The exposed face is composed of a 090 FRP with a consistent smooth face (no fiberglass print through). The FRP surface finish is glossy and ASTM E 84 Class A for smoke and flame spread.

The panel will be supplied in standard 47" x 8' or 47" x 10' sizes. The vertical edge shall be a square edge design. Fasteners mounting hardware will be countersunk at the panel perimeter, above the ceiling and at the bottom behind the flooring cove base. The resulting butt joint will be filled with a silicone adhesive then covered by a flat batten, the surface of which will match the panel face. The panel/batten interface will receive a final sealant of 100% solid urethane sealant. The final surface is dense, stain resistant, chemical resistant and impervious to water. It is non-generating for particulate matter and as such is ideal for walls and ceilings in animal holding, research labs and technical/pharmaceutical production spaces.

The Bio/CR-2B system is designed specifically as a biocontainment and clean room application that is applicable to several industries including BSL-3, BSL-4 and Ag-3 facilities. Further the ability to mount these panels directly on studs reduces construction time and eliminates painting or repainting; the panels can also be mounted to concrete, drywall, hardboard or CMU substrates.

**Cleaning:** GridLock Panels can withstand daily surface washing, wet wiping, dusting and vacuuming. They can withstand routine high-pressure washing and chemical disinfection and fumigation. The resinous finish will not support the growth of bacteria or mold. Ask your LSP Representative for more detailed maintenance instructions.

The panels have the following properties:

**Fire Rating:** Class 1 ASTM E 84 for flame spread of 25 or less

**Light Reflectance @ 85:** 94.3

**Minimum Weight:** 2.0 lbs. per square foot

**Finish:** Polyester gel coat smooth (no print through)

**Panel thickness:** 1/4"

**Color:** White

**Finish:** Gloss

**Hardness:** ASTM D-785 46 Barcol

**Flexural Mod ASTM D-790-07:** 557,693

**Flexural Strength-ASTM D 790-07:** 5325 psi

**Water Vapor Transmission ASTM E-96:** < 0.0001 perms

**Air Permeance ASTM E-2178 (L/s/m<sup>2</sup>):** 0.00001 @ 300 pa

**Tensile Strength: ASTM D-638:** 3272 psi

**Tensile Mod ASTM D-638:** 511,000

**Coefficient of Linear Thermal Expansion CLTE (mm mm C) ASTM D-696:** 4.30 E -05

**Compressive Strength ASTM D-695:** 5364 psi

**Modulus: ASTM D695:** 49,873 psi

The joint adhesive/sealant has the following properties:

<b>Hardness Shore D</b>	<b>ASTM D-1706</b>	<b>70 - 80</b>
<b>Tensile Strength</b>	<b>ASTM D-638</b>	<b>3,000 psi min.</b>
<b>Flexural Strength</b>	<b>ASTM D-790</b>	<b>4,000 psi min.</b>
<b>Thermal Shock</b>	<b>Mil F-52505</b>	<b>No cracking or loss of adhesion</b>
<b>Abrasion Resistance (Taber Abrader, CS-17 Wheels, 1000 gm. load, 1000 cycles)</b>	<b>ASTM D-4060</b>	<b>.035 gm loss</b>
<b>Ultimate Elongation</b>	<b>ASTM D-638</b>	<b>20% min.</b>
<b>Chemical Resistance</b>	<b>20% Acetic Acid</b>	<b>Occasional Spill</b>
	<b>50% Citric Acid</b>	<b>Good</b>
	<b>20% Nitric Acid</b>	<b>Occasional Spill</b>
	<b>30% Hydrochloric Acid</b>	<b>Occasional Spill</b>
	<b>10% Hydrofluoric Acid</b>	<b>Occasional Spill</b>
	<b>Hydrogen Peroxide</b>	<b>Good</b>
	<b>40% Potassium Hydroxide</b>	<b>Good</b>
	<b>40% Sodium Hydroxide</b>	<b>Good</b>
	<b>50% Sulfuric Acid</b>	<b>Good</b>
	<b>Urea</b>	