

## **Bio/CR-1B** GridLock® Panel (walls and ceilings)

### **General Description:**

Bio/CR-1B panel system is part of the GridLock Biocontainment /Clean Room product line. The panels used in this system are 7/16 inch thick and are made of polymer, metal and fiberglass composite that form a durable composite 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 is square and is designed for direct fastening to the wall studs. The joint that results from butting the two square edges is filled with sealant and covered with a flat batten having the same surface characteristics as the panel face. 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 animal holding, research laboratories and technical/pharmaceutical production spaces.

The Bio/CR-1B system is designed specifically as a biocontainment and clean room application that is applicable to several industries for both walls and ceilings. Further the ability to mount these panels directly on studs reduces construction time and eliminates painting or repainting. The panel system is applicable to ceilings as well mounting to either metal studs or hat channel.

**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:

**Recycle Content:** Minimum 50%  
**Fire Rating:** Class 1 ASTM E 84 for flame spread of 25 or less  
**Light Reflectance @ 85:** 94.3  
**Minimum Weight:** 2.85 lbs. per square foot  
**Finish:** Polyester gel coat smooth  
**Standard Sizes:** 4' X 8' and 4' x 10'  
**Panel thickness:** 7/16"  
**Color:** White  
**Finish:** Gloss  
**Hardness:** ASTM D-785 46 Barcol  
**Flexural Mod ASTM D-790-07 :** 657,693  
**Flexural Strength-ASTM D 790-07:** 6751 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  
**STC Rating ASTM E-90:** 32  
**Tensile Strength: ASTM D-638:** 3672 psi  
**Tensile Mod ASTM D-638:** 581,000  
**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>	