

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

### **General Description:**

Bio/CR-2 wall system is part of the GridLock Biocontainment /Clean Room product line. The panels used in this system are 1/4 inch thick and are 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 routed in a design that allows for mechanical fastening to the wall studs. The final routed recess is filled with a 100% solids LEED compliant urethane adhesive which shall also provide a gloss finish consistent with 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-2 "system" is designed specifically as a sealed seamless biocontainment and clean room application that is applicable to several industries. The system is considered "seamless" and there are no joint battens. Further the ability to mount these panels directly on studs reduces construction time and eliminates painting or repainting.

The same mounting system used to install the panels for walls is also used for ceilings as "hard lid" systems that are seamless and batten free. 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>	