

**Bio/CR-4B**  
GridLock® Panel (walls and ceilings)

**General Description:**

The Bio/CR-4B panel is part of the GridLock Biocontainment/Clean Room product line. The panel is 3 mm 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 polymer matrix reinforced with fibers. The polymer matrix/fibers surface finish has a gloss finish and the composite assembly is ASTM E 84 Class A for smoke and flame spread.

The panel will be supplied in standard 48" 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 butt joints between the panels will be held at ¼ inch space and later 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 along both longitudinal sides. 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-4 system is designed specifically as a biocontainment and clean room application that is applicable to several industries including BSL-3, and BSL-4 facilities. Further the ability to mount these panels directly to approved substrates reduces construction time and eliminates painting and maintenance costs. It represents an economical alternative to the Bio/CR-2B panel and is suitable for either walls or ceilings.

**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:** Composite Assembly - Class 1 ASTM E 84 for flame spread of 25 or less
- Light Reflectance @ 85:** 87
- Minimum Weight:** 1.7 lbs. per square foot
- Finish:** Polyester gel coat
- Panel thickness:** 3 mm
- Color:** White
- Finish:** Semi-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

<b>Chemical Resistance</b>	20% Acetic Acid	Occasional Spill
	50% Citric Acid	Good
	20% Nitric Acid	Occasional Spill
	30% Hydrochloric Acid	Occasional Spill
	10% Hydrofluoric Acid	Occasional Spill
	Hydrogen Peroxide	Good
	40% Potassium Hydroxide	Good
	40% Sodium Hydroxide	Good
	50% Sulfuric Acid	Good
	Urea	

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>