

**Bio/CR-3**  
GridLock® Panel (wall and ceiling applications)

**General Description:**

Bio/CR-3 Panel System is part of the GridLock Biocontainment /Clean Room product line. The panels are 7/16 inch thick and are made of an aggregate of polymer, metal and fiberglass composite that create a durable composite panel available in standard 4' x 8' or 4' x 10' sizes. The exposed face is 090 FRP with a consistent smooth face that shows a minor fiberglass print through. The FRP surface finish is glossy and ASTM E 84 Class A for smoke and flame spread.

For a seamless installation the vertical edge is routed to form a modified recessed ship lap design that allows for direct fastening to the wall studs in the overlap. The final outer recess is then filled with a 100% solids LEED compliant urethane adhesive which also provides a sealed gloss finish. The surface finish of the system is dense, stain resistant, chemical resistant and impervious to water. It is non-generating for particulate matter and as such is ideal for use in BSL-3 and 4 facilities, standard animal holding, research laboratories and pharmaceutical production walls and ceilings.

The Bio/CR-3 "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.

**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:** 87  
**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>	