

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

**General Description:**

The Bio/CR-4 panel is part of the GridLock Biocontainment /Clean Room product line. The panel is ¼" thick and is made of polymer, metal and fiberglass composite that form an economical composite panel for use in either walls or ceilings. The exposed face is composed of a 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.

The panel will be supplied in standard 4' x 8' or 4' x 10' sizes. The vertical edge shall be routed in a design that allows for direct fastening to the wall studs. The final recess is filled with a 100% solids LEED compliant urethane adhesive which provides a smooth transition across the recess from panel to panel. 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-4 system is designed specifically as a biocontainment and clean room application that is applicable to several industries. Further the ability to mount these panels directly on studs reduces construction time and eliminates painting or repainting. The panels can be used for both wall and ceiling applications in animal facilities, pharmaceutical manufacturing and laboratories.

**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:** 87  
**Minimum Weight:** 2.00 lbs. per square foot  
**Finish:** Polyester gel coat smooth  
**Standard Sizes:** 4' X 8' and 4' x 10'  
**Panel thickness:** ¼"  
**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<br/>(Taber Abrader, CS-17<br/>Wheels, 1000 gm. load,<br/>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>                    |  |