**Bio/CR-10**

GridLock® Panel (wall and ceiling applications)

**General Description:**
Bio/CR-10 Panel System is part of the GridLock Bioclean Room product line. The panels are 9 mm 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 polymer matrix with a ultra smooth high gloss finish. The polymer matrix/fibers 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 shiplap 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-10 “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:** 2.3 lbs. per square foot
- **Finish:** Polyester gel coat ultra smooth
- **Standard Sizes:** 4’ X 8’ and 4’ x 10’
- **Panel thickness:** 9 mm
- **Color:** White
- **Finish:** High 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/m²):** 0.00001 @ 300 pa
- **STC Rating ASTM E-90:** 30
- **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
Chemical Resistance

20% Acetic Acid | Good  
50% Citric Acid | Occasional Spill  
20% Nitric Acid | Good  
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 | Occasional Spill

The joint adhesive/sealant has the following properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Standard</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Hardness Shore D</td>
<td>ASTM D-1706</td>
<td>70 - 80</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>ASTM D-638</td>
<td>3,000 psi min.</td>
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<tr>
<td>Flexural Strength</td>
<td>ASTM D-790</td>
<td>4,000 psi min.</td>
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<tr>
<td>Thermal Shock</td>
<td>Mil F-52505</td>
<td>No cracking or loss of adhesion</td>
</tr>
<tr>
<td>Abrasion Resistance (Taber Abrader, CS-17 Wheels, 1000 gm. load, 1000 cycles)</td>
<td>ASTM D-4060</td>
<td>.035 gm loss</td>
</tr>
<tr>
<td>Ultimate Elongation</td>
<td>ASTM D-638</td>
<td>20% min.</td>
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