

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 1/4 inch 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 090 FRP with a minor fiberglass print translation. The FRP surface finish has a gloss finish and is 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 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 resulting butt joint will be 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 of 100% solid urethane sealant. 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-4B system is designed specifically as a biocontainment and clean room application that is applicable to several industries including BSL-3, BSL-4 and Ag-3 facilities. Further the ability to mount these panels directly on studs reduces construction time and eliminates painting or repainting; the panels can also be mounted to concrete, drywall, hardboard or CMU substrates. 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: Class 1 ASTM E 84 for flame spread of 25 or less

Light Reflectance @ 85: 87

Minimum Weight: 2.0 lbs. per square foot

Finish: Polyester gel coat

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/m²): 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:

Hardness Shore D	ASTM D-1706	70 - 80
Tensile Strength	ASTM D-638	3,000 psi min.
Flexural Strength	ASTM D-790	4,000 psi min.
Thermal Shock	Mil F-52505	No cracking or loss of adhesion
Abrasion Resistance (Taber Abrader, CS-17 Wheels, 1000 gm. load, 1000 cycles)	ASTM D-4060	.035 gm loss
Ultimate Elongation	ASTM D-638	20% min.
Chemical Resistance	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	