

Bio/CR-4
GridLock[®] Panel (walls and ceilings)

General Description:

Bio/CR-4 system is part of the GridLock Biocontainment /Clean Room product line. The panels used in this system are 6 mm thick and are 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/gelcoat saturated fiber. The face is a consistent smooth face and a semi-gloss finish. The panel assembly is ASTM E-84 Class A for flame and smoke developed.

The panel will be supplied in 4'X 8', 4' x 9' and 4' x 10' sizes. The vertical edge shall be routed in a design that allows for mechanical fastening to the wall substrate. The final routed recess is filled with a 100% solids LEED compliant urethane adhesive which shall also provide a gloss finish consistent with the panel face. 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 sealed seamless biocontainment and clean room application that is applicable to several industries. The system is considered "seamless" and there are no joint battens. Additionally, the ability to mount these panels directly onto acceptable surfaces reduces construction time and significantly reduces future maintenance costs.

The standard mounting system used to install the panels for walls is also used for ceilings as "hard lid" applications 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:

Fire Rating: Complete assembly is Class 1
ASTM E 84 for flame spread of 25 or less
Light Reflectance @ 85: 94.3
Minimum Weight: 1.7 lbs. per square foot
Finish: Polyester gel coat smooth (no print through)
Panel thickness: 6 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/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

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	

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.