

Bio/CR-3B
GridLock® Panel (walls and ceilings)

General Description:

Bio/CR-3B panel is part of the GridLock Biocontainment /Clean Room product line. The panels used in this system are 12 mm thick and are made of polymer, metal and fiberglass composite that form a durable composite panel. The exposed face is composed of a 090 polymer matrix reinforced with fibers with a consistent smooth face (with a minor fiberglass through print). The polymer matrix/fibers 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 is square and is designed for direct fastening to the wall studs. The joint that results from butting the two square edges is filled with sealant and covered with a flat batten having the same surface characteristics as the panel face. The final surface is dense, stain resistant, chemical resistant and impervious to water and is suitable for both walls and ceilings. It is non-generating for particulate matter and as such is ideal for BSL-3, BSL-4 and standard animal holding, research laboratories and pharmaceutical production spaces.

The Bio/CR-3B system is designed specifically as a biocontainment and clean room application that is applicable to several industries for both walls and ceilings. Further the ability to mount these panels directly on studs reduces construction time and eliminates painting or repainting. The panel system is applicable to ceilings as well mounting to either metal studs or hat channel.

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: 3.1 lbs. per square foot
Finish: Polyester gel coat smooth
Standard Sizes: 4' X 8' and 4' x 10'
Panel thickness: 12 mm
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/m²): 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

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.