



Perry Fiberglass Products, Inc.

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PERRY BIO-FGW MEDIA

Proven Biological Technologies

Technical Guidance Document for Biological Systems

PERRY BIO-FGW media is an engineered, acid-resistant, inorganic substrate designed to provide a balanced combination of small pores and large spaces, which provides a large surface area to create an ideal environment for microorganisms, with low static pressure. PERRY BIO-FGW is manufactured from 100% recycled material (green technology), is rigid, lightweight, and will not degrade or decompose over time.

Physical Properties

	kg/m³	lb./ft³
Bulk Density (dry):	200	12.4
	kg/m³	lb./ft³
Bulk Density (operating):	445	27.6
	kg/m³	lb./ft³
Water Holding Capacity:	350	21.7
	mm	in
	90%	90%
Particle Size:	12 to 40	0.5 to 1.5
	m²/m³	ft²/ft³
Surface Area:	60,000	18,288
	%	%
Porosity:	80 to 90	80 to 90
	%	%
Void Fraction:	80 to 90	80 to 90
	kPa	lb./in²
Crushing Load:	10% 447.85	65
	50% 2,687	390
	80% 8,957	1,300

Technical Design Parameters

BIO MEDIA FGW media is an engineered, acid resistant product that must be operated within certain design parameters to ensure long-term, satisfactory performance. Deviations outside of the conditions below will adversely affect H₂S removal performance, media longevity, and potentially void any media warranty claims.

- Empty Bed Residence Time (EBRT): Typically 5-15 seconds (Based on project specific inlet loadings and performance expectations)
- Media bed temperature: 50-100F (10-38C)
- Foul air humidity: >50%
- Face velocity through media bed: 20-70 feet per minute (FPM)
- Media bed depth: >5' (1.5M)
- Media irrigation: Continuous spray, recirculated or once-through at a rate of 0.3GPM per ft² of media surface area
- Make-up water source: Secondary effluent preferred. If potable, Perry supplemental nutrients are required.

All design parameters are pertaining to a system while in operation. Refer to Perry Fiberglass Products, Inc. O&M manual for proper media storage and handling instructions.