



AZ Grade

Microsphere Syntactic Foam

Technical Data Sheet

Highlights

- **Operational Depth Range (Surface - 6 000 Meters)**
- **Lowest Density Available in the Entire Industry**
- **Premium Performance for Deep-Water Apps**
- **High Compressive and Hydrostatic Strength**
- **Standard Forms and Customization Options**
- **Low Water Absorption**

Premium Performance

AZ Grade premium syntactic foams are engineered to operate in the deep-water regions of the ocean's Abyssopelagic Zone, at depths ranging from 4 000 down to 6 000 meters. These specially formulated systems utilize advanced hollow glass spheres to attain the lowest possible density in the industry.

Industry Applications

Ranging in density from 29 to 34 lbs/ft³, these homogenous materials are designed to meet the depth, buoyancy, safety and cost requirements for applications such as: 4K, 5K and 6K ROVs and AUVs.

Product Availability

AZ Grade syntactic foams are available in block form and may be readily used for customer assembly or cut to fit application requirements. Blocks or trimmed parts may also be bonded together to form larger structures. Standard block sizes are 5.75" x 12" x 12" or 5.75" x 12" x 24". Custom sizes and shapes are available upon request.



Typical Properties

Product	Density	Service		Weight Gain	Hydrostatic Crush	Compressive	
		Pressure	Depth			Strength	Modulus
	lb/ft ³ (g/cc)	psi (Bar)	feet (meters)	24 hrs @ depth	psi (Bar)	psi (MPa)	ksi (GPa)
AZ - 29	29 ± 2 (0.46 ± .03)	5 775 (398)	13 100 (4 000)	2% Max	8 700 (600)	7 900 (54.4)	290 (2.00)
AZ - 31	31 ± 2 (0.50 ± .03)	7 300 (503)	16 400 (5 000)	2% Max	13 000 (896)	9 000 (62.0)	328 (2.26)
AZ - 34	34 ± 2 (0.55 ± .03)	9 000 (620)	19 680 (6 000)	2% Max	15 000 (793)	9 200 (63.4)	400 (2.75)