

**MICROSPHERE SYNTACTIC MATERIALS**
**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 5,000 meters. These specially formulated systems utilize advanced hollow glass spheres to attain the lowest possible density in the industry. Hydrostatic performance is assured with crush depths at a minimum of 1.5 times the operation depth.

**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:**

4" x 12" x 24" (102 x 305 x 610 mm)

Custom sizes and shapes are available upon request.

**Industry Applications**

Ranging in density from 29 to 31 lbs/ft<sup>3</sup>, these homogenous materials are designed to meet the depth, buoyancy, safety and cost requirements for applications such as: 4K and 5K ROVs and AUVs.

# AZ GRADE

**HIGHLIGHTS**

- ▶ Operational Depth Range: Surface - 5,000 Meters
- ▶ Lowest Density Available in the Entire Industry
- ▶ Premium Performance for Deep-Water Applications
- ▶ High Compressive and Hydrostatic Strength
- ▶ Standard Forms and Customization Options
- ▶ Low Water Absorption


**PROPERTIES**

Product	Density lb/ft <sup>3</sup> (g/cc)	Service		Weight Gain 24h @ depth	Hydrostatic Crush psi (Bar)	Uniaxial Compressive	
		Pressure psi (Bar)	Depth feet (meters)			Strength at 0.2% Offset psi (MPa)	Modulus ksi (GPa)
AZ-29	29 ± 2 (0.46 ± .03)	5,775 (398)	13,100 (4,000)	1% Max	8,780 (605)	6,650 (46)	330 (2)
AZ-30	30 ± 2 (0.46 ± .03)	6,527 (450)	14,750 (4,500)	1% Max	10,310 (711)	7,930 (55)	370 (3)
AZ-31	31 ± 2 (0.50 ± .03)	7,300 (503)	16,400 (5,000)	1% Max	12,900 (883)	9,640 (66)	415 (3)

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