

MICROSPHERE SYNTACTIC MATERIALS
Premium Performance

HZ Grade syntactics are formulated to survive crush pressures greater than 20,000 psi, for safe operation in the Hadal Zone. Produced from the most advanced resin and hollow glass microspheres available, these homogeneous materials provide the industry's lowest density for this extreme depth range.

Product Availability

HZ 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.

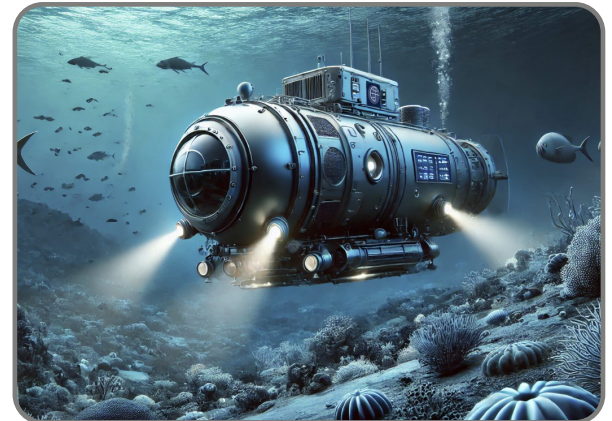
Industry Applications

Ultra-buoyant HZ Grade materials are predominantly used for deep water AUV, ROV and HOV applications, where reliable performance, increased payload and longer mission duration at extreme depths are critical for successful operation.

HZ GRADE

HIGHLIGHTS

- ▶ Operational Depth Range: 6,000 - 11,000 Meters
- ▶ Lowest Density Available in the Entire Industry
- ▶ Premium Performance at Deepest Depths
- ▶ High Compressive and Hydrostatic Strength
- ▶ Standard Forms and Customization Options
- ▶ Low Water Absorption


PROPERTIES

Product	Density lb/ft ³ (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)
HZ-34	34 ± 2 (0.55 ± .03)	10,150 (700)	23,000 (7,000)	1% Max	15,325 (1,057)	12,370 (85)	545 (4)
HZ-43	43 ± 2 (0.69 ± .03)	18,000 (1,241)	36,000 (11,000)	1% Max	24,000 (1,650)	16,000 (110)	650 (4)
HZ-45	45 ± 2 (0.72 ± .03)	18,000 (1,241)	36,100 (11,000)	1% Max	24,000 (1,650)	17,000 (118)	675 (5)