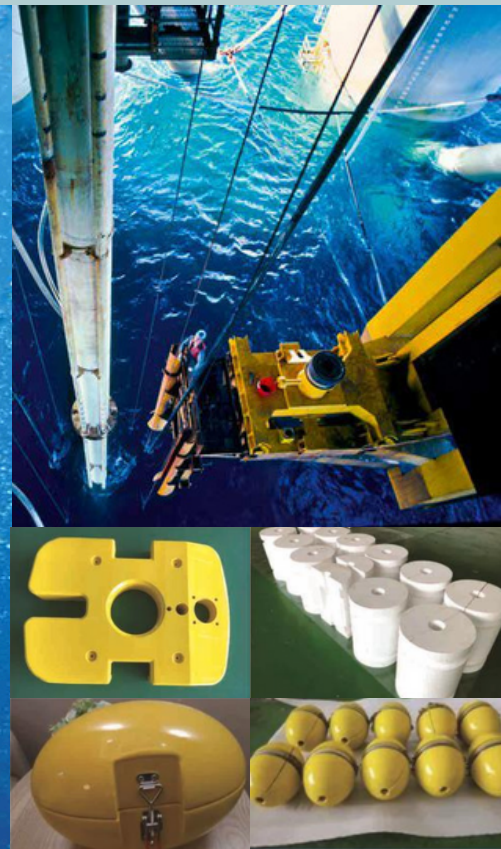


MaxFloat™

Advanced Syntactic Foam for Subsea and Offshore Buoyancy from Surface to 11,000m Depth

Go Deeper with Bunjil Composites



BUNJIL COMPOSITES

MaxFloat™

The Perfect Balance of Lightweight, Strength and Durability

Syntactic foam is a composite material consisting of hollow glass microspheres embedded within a polymer matrix. This structure delivers exceptional lightness and strength, making it ideal for buoyancy applications in subsea vehicles and deep-water systems.

MaxFloat™ syntactic foam is built on decades of design and manufacturing expertise. Its outstanding mechanical performance, optional integration of metallic inserts, and durable protective coatings ensure long service life in demanding offshore environments. Typical applications include oil & gas subsea modules, ROV/AUV buoyancy blocks, deep-water oilfield equipment, and oceanographic instruments—where strength, impact resistance, buoyancy retention, and thermal stability are critical.

Thanks to its advanced formulation, MaxFloat™ offers some of the lowest densities available on the market for depths from 1,000 m to 11,000 m, while maintaining superior compressive strength and long-term durability.

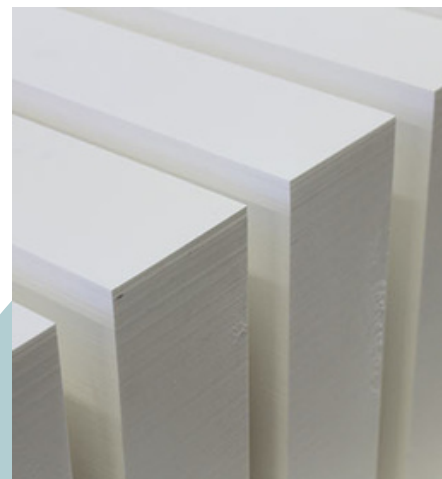
Available as standard blocks or fully customised buoyancy modules, MaxFloat™ can be used as-is, cut to precise dimensions, or bonded to form larger assemblies.

We partner with a specialised technology company focused on high-performance solid buoyancy materials. Backed by an advanced R&D centre and a multidisciplinary team—including professors, PhDs and engineers in polymer science, composites, functional materials, and mechanical design—the team has deep expertise in microsphere and macrosphere syntactic foam technologies. Through continuous innovation, they have developed dozens of high-tech products and hold multiple patents in this field.

Built upon this strong technical foundation, MaxFloat™ delivers reliable, high-performance syntactic foam engineered for the most demanding subsea and offshore conditions. In marine operations, compressive strength, buoyancy efficiency, thermal insulation and long service life are essential for safety and reliability. Leveraging our complete material portfolio and deep application know-how, MaxFloat™ provides tailored buoyancy solutions for critical subsea equipment.

What We Offer

- MaxFloat™ Standard Blocks
- MaxFloat™ Large-Format Bonded Blocks for increased dimensions and modular assembly
- MaxFloat™ Custom CNC-Machined 3D Components tailored to your design requirements
- MaxFloat™ custom 3D-machined components—optionally enhanced with macrosphere blends—can be supplied with high-performance protective coatings such as polyurethane finishes or a robust 2 mm elastic polyurea layer.
- MaxFloat™ GFR-HEMS (glass fibre reinforced hollow epoxy microspheres)



SPECIFICATIONS

	Grade	Density, kg/m ³	Compressive strength, MPa	Water Absorption	Application depth, m
MaxFloat™ Standard	PM-130	130±10	2.0	< 2%, 1.1MPa 24h	100
	PM-200	200±10	4.5	< 2%, 2.2MPa 24h	200
	PM-250	250±10	6.0	< 2%, 3.3MPa 24h	300
	BYZ-036	360±10	18	< 1%, 7MPa 24h	600
	BYZ-038	385±10	20	< 1%, 12MPa 24h	1,000
	BYZ-041	410±10	25	< 1%, 15MPa 24h	1,200
	BYZ-044	440±10	35	< 1%, 22MPa 24h	2,000
	BYZ-046	460±10	40	< 1%, 36MPa 24h	3,000
	BYZ-053	530±10	50	< 1%, 60MPa 24h	4,500
	BYZ-056	560±10	60	< 1%, 65MPa 24h	5,000
	BYZ-058	580±10	80	< 1%, 72MPa 24h	6,000
MaxFloat™ High Performance	HYZ-040	400±10	30	< 1% , 18MPa 24h	1,500
	HYZ-042	420±10	40	< 1%, 36MPa 24h	3,000
	HYZ-048	480±10	60	< 1%, 55MPa 24h	4,000
	HYZ-052	520±10	75	< 1%, 72MPa 24h	6,000
	HYZ-058	580±10	90	< 1%, 90MPa 24h	8,000
	BYZ-063	630±10	115	< 1% , 110MPa 24h	9,000
	BYZ-066	660±10	125	< 1%, 130MPa 24h	10,000
	BYZ-068	680±10	145	< 1%, 145MPa 24h	11,000

Standard Block Dimensions:

- BYZ and PM grades: 500*500*100mm, or 640*540*100mm;
- HYZ grades: 500*500*100mm

SPECIFICATIONS

	Grade	Hydraulic pressure, MPa	Density, kg/m ³
MaxFloat™ GFR- HEMS (glass fibre reinforced hollow epoxy macrospheres)	GM-180	2.0	180
	GM-220	3.0	220
	GM-240	5.0	240
	GM-300	10	300
	GM-320	12	320
	GM-350	15	350

Standard GFR-HEMS Diameters: 40mm, 15mm and 8mm

Our Case References



Whatever your subsea application, our materials can take the pressure

About Bunjil Composites

We are an Australian company dedicated to delivering innovative industrial solutions across a broad spectrum of industries, including construction, mining, renewable energy (wind and solar), and composite manufacturing. Our mission is to enhance efficiency, safety, and sustainability for our clients through cutting-edge technology and reliable support.

Our Team

Our team is made up of highly experienced professionals, bringing over 20 years of composites engineering and application technology expertise to every project we deliver. Our engineers are Australia-certified (EA) personnel, all committed to delivering the best possible solutions for our clients. We work collaboratively to ensure our products and services consistently meet the highest standards of quality and reliability.



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