

## **Engineered Syntactic Systems HZ-45 Deep Water Syntactic Foam**

Category: Polymer

## **Material Notes:**

Syntactic foams are a unique combination of hollow spheres, a resin matrix, and other additives. When combined and processed properly, the constituents form a lightweight homogeneous material having high compressive and hydrostatic strengths. This yields a product able to withstand the high hydrostatic pressures experienced by today's manned and unmanned subsea vehicles. The AZ Grade of syntactics have been designed and constructed to operate in the deep-water regions of the ocean's Abyssopelagic Zone. (below 4,000 meters/13,100 feet). Standard products, ranging in density from 34 to 40 lbs/ft3, may be selected for customer use based on the specific depth requirements, required buoyancy, desired safety factor, and cost. Each block is cast as a single unit, but may be cut to fit the application requirement. Blocks or trimmed parts may also be bonded together to form a larger structure.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_Engineered-Syntactic-Systems-HZ-45-Deep-Water-Syntactic-Foam.php

Physical Properties	Metric	English	Comments
Density	0.689 - 0.753 g/cc	0.0249 - 0.0272 lb/in <sup>3</sup>	
Water Absorption	<= 3.0 %	<= 3.0 %	at depth
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Compressive Strength	119 MPa	17200 psi	
Compressive Modulus	3.12 GPa	452 ksi	
Hydrostatic Design Basis	>= 138 MPa	>= 20000 psi	Hydrostatic Crush Strength

Descriptive Properties	Value	Comments
Service Depth (feet)	40900	
Service Pressure (psi)	18000	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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