

DEEP SEA GLASS SPHERES

FOR FLOTATION AND
INSTRUMENT HOUSINGS



► FEATURES

Benthos glass spheres are a unique alternative for flotation and housing instruments in the marine environment. Benthos glass flotation spheres and instrument housings are manufactured from precision-molded glass hemispheres. The equator surface of each hemisphere is precision ground on the flat sealing as well as the inside and outside diameters -- making match up of hemispheres more precise and providing a cost saving to customers. Spheres are then sealed using Benthos' patented VacuSealed method and individually tested to their rated pressure.

Deep sea flotation spheres are constructed of hemispheres that are matched, mated, and evacuated to an internal pressure of less than 0.3 atmospheres. After evacuation a rubber sealant tape is applied over the equator joint and then covered with a wide protective tape. Spheres sealed in this method are nearly impossible to open due to the force exerted on them by atmospheric pressure. In the case of the 13-inch sphere this force is 1,366 pounds.

All glass spheres are available for use as flotation spheres or electronic instrument housings. Please order by model number:

- 2040-13V, -17V -- 13 or 17 inch diameter spheres

► SPECIFICATIONS

Type:	Low expansion borosilicate	
Thermal Coefficient of Expansion:	$38 \times 10^{-7}/^{\circ}\text{C}$	
Specific Gravity:	2.22	
Young's Modulus:	62GPa (9×10^6 p.s.i.)	
Poisson's Ratio:	0.20	
Refractive Index:	1.48	
Thermal Conductivity:	0.0023 calorie cm/cm ² sec°C	
Dimensions:	2040-13V	2040-17V
Outside Diameter:	13 in. (33.0 cm)	17 in. 43.2 cm)
Inside Diameter:	12 in. (30.5 cm)	15.9 in (40.4 cm)
Weight in Air:	20 lbs. (9.07 kg)	39 lbs. (17.7 kg)
Buoyancy:	23 lbs. (10.4 kg)	56 lbs. (25.4 kg)
Depth Rating:	36,202 ft. (11,034 m)	22,000 ft. (6,700 m)

*Please contact the factory for additional
product information, delivery, and pricing.*



BENTHOS, INC., 49 Edgerton Drive, North Falmouth, Massachusetts 02556-2826 USA
Tel: 1-508-563-1000 • Toll Free (USA only): 1-800-446-1222 • Fax: 1-508-563-6444
E-mail: info@benthos.com • Web: <http://www.benthos.com>