



How to get the BEST Dock Foundation

Delivering quality marine solutions since 1992
PO Box 120118, St. Paul, MN 55112
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YOUR NUMBER 1 BENEFITS:

- **Key Tools to determine your Best Foundation & ROI**
- **Meets all Industry Standards for Encapsulated Flotation**
- **Detailed Float Specifications**
- **40 Year Lifecycle**
- **15 Year Warranty – first 10 years 100%**
- **Heaviest Mounting Flanges**
- **Over 70 Models to meet your requirements**

MARINE INDUSTRY STANDARDS

for Encapsulated Dock Flotation

Encasement Wall Thickness Standard

- 0.150" nominal and 0.125" minimum thickness

Falling Dart Impact Test – ASTM D1998-06

- Proves quality for both material and molding process

7-Day Hunt Water Absorption Test

- Maximum water absorption rate of 3.0 lbs per cubic foot of foam
- Minimum foam density of 1.0 pcf

Flexural Strength Test – ASTM C203

- Minimum of 5.5 lbs weight
- Test correlates to the 7-Day Hunt Test to ensure the EPS foam is fused together properly promoting better resistance to water absorption

Flame Retardant Test – ASTM D4986-03

- Provides higher level of assurance the float will not ignite if there is an accident

Certified Tank-Tested Buoyancy Test

- This provides accurate buoyancy information for proper design and purchasing

USACE Regulation 36CFR Part 327.30

- Excludes the use of raw foam and empty barrels and defines requirements that encapsulated foam must meet

Testing Procedures for MARINE INDUSTRY STANDARDS for Encapsulated Dock Flotation



Encasement Wall Thickness Test

- Nominal 0.150 inches and a minimum of 0.125 inches.



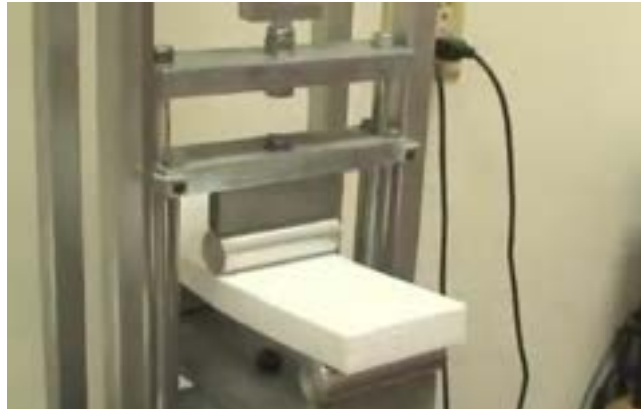
ASTM D1998-06 Falling Dart Test

- Requires minimum impact of 90 lbs. on specimen at -40°C



7-Day Hunt Water Absorption Test

- Less than 3.0 lbs. per CF water absorption in seven day.

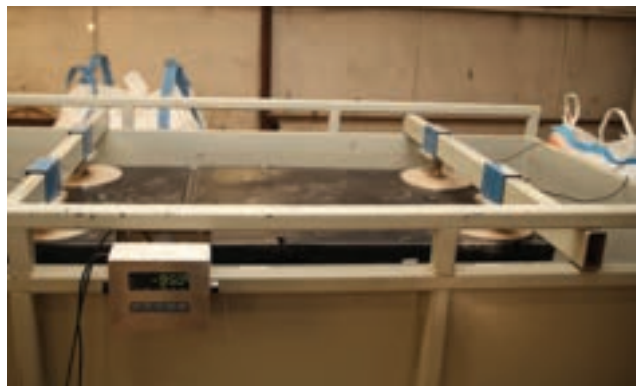


Flexural Strength Test

- Correlates to 7-Day Hunt Test to verify minimum water absorption.

USACE Regulation 36CFR Part 327.30

- Excludes the use of raw foam, defines requirements that encapsulated foam must meet.



Certified Tank-Tested Buoyancy

- Assures the dock manufacturer proper size and quantity of floats to meet the dock design.

MORE THAN 96 STANDARD SIZES

PREMIER FLOATS

SIZE	TANK TESTED BUOYANCY
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8" FLOATS

2072-08	350
2436-08	205
2448-08	290
3648-08	460

10" FLOATS

2096-10	670
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12" FLOATS

1636-12	190
2436-12	300
2448-12	390
2460-12	480
2496-12	880
3048-12	540
3636-12	485
3648-12	620
3660-12	750
3672-12	950
3696-12	1250
4848-12	850
4860-12	1070
4872-12	1300
4896-12	1750

16" FLOATS

1872-16	640
2436-16	390
2448-16	530
2460-16	670
3636-16	620
3648-16	820
3660-16	1050
3672-16	1270
3696-16	1670
4848-16	1140
4860-16	1420
4872-16	1720
4896-16	2310

18" FLOATS

2448-18	620
3648-18	960

SIZE	TANK TESTED BUOYANCY
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10 FT FLOATS

36120-20	2800
36120-24	3350
36120-32	4398
48120-20	3800
48120-24	4560
48120-32	5785

20" FLOATS

1248-20	310
2448-20	680
3648-20	1050
3660-20	1250
3672-20	1580
3696-20	2080
4848-20	1430
4860-20	1750
4872-20	2120
4896-20	2910

24" FLOATS

1872-24	950
2448-24	790
3648-24	1260
3672-24	1850
3696-24	2540
4848-24	1680
4860-24	2100
4872-24	2560
4896-24	3450

28" FLOATS

2496-28	1930
3636-28	1050
3648-28	1450
3672-28	2150
3696-28	2880
4848-28	1880
4872-28	3030
4896-28	4060

- Black is the standard float color, other colors are available.
- Call if you don't see the size you need.

SIZE	TANK TESTED BUOYANCY
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32" FLOATS

3648-32	1610
3672-32	2430
3696-32	3250
4848-32	2190
4872-32	3400
4896-32	4440

36" FLOATS

2448-36	1160
3696-36	3730
4848-36	2450
4872-36	3880
4896-36	5130

BREAKWATER FLOATS

23" x 24"	335
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FLANGED FLOATS

2448-08F	240
2436-12F	240
2448-12F	360
2436-16F	340
2448-16F	480
3648-16F	820
4848-16F	1140
4672-16F	1250
4872-16F	1420
2448-18F	620
3648-18F	960
2448-20F	600
3648-20F	960
4848-20F	1350
3648-24F	1140
4848-24F	1530

SPECIFICATIONS

- Please call if you wish to see a complete specification breakdown.
- Virgin grade polyethylene material is used for outer shell and virgin grade polystyrene is used for the expanded in place foam.

FLOAT SPECIFICATION

Flotation Units:

1. Shall be capable of attaching to the structural frame by minimum 3/8 inch mounting hardware. Shall have a minimum of six mounting slots molded in float with 2.00" thick mounting flanges.
2. The floats are resistant to damage by animals, ice, bumps by watercraft, and deterioration from petroleum products.
3. The float manufacturer shall be able to furnish Industry Standards test results for each size float furnished as described in Test Documents Required below if requested.
4. The manufacturer must provide a minimum of 15 Year Warranty with the first 10 years 100%.

Flotation Encasement:

1. The encasement shall be 100% virgin grade linear low density polyethylene, black in color, with a minimum wall thickness of 0.150.
2. The encasement shall also have the following minimum characteristics:
 - a. Density by ASTM D-792 of 0.941.
 - b. Tensile yield strength by ASTM D-638 of 2930 PSI
 - c. Tensile ultimate strength by ASTM D-638 of 4250 PSI
 - d. Flexural modulus by ASTM D-790 of 119,950 PSI
3. The encasement shall meet for fire UL class 746C and 94HB.
4. The encasement shall meet the ASTM D1998-06 Falling Dart Test to assure the material quality and molding process.

Flotation Material:

1. The flotation material shall be 100% virgin grade polystyrene, expanded in place in the encasement.
2. It shall have a density of 1.0 pcf minimum based on ASTM C-303.
3. It will not sink or contaminate the water if the encasement is punctured.
4. It shall meet UL 1975 and ASTM E84 for fire resistance.
5. The material will meet the "The Seven Day Hunt Absorption Test of less than 3.0 lbs per cubic foot water absorption in seven days per the test requirement.

Test Documents Required: (per Industry Standards for each model supplied)

1. Digital reading of wall thickness based on a minimum of 6 locations per side of encasement. Minimum 0.125" – Nominal 0.150"
2. The Falling Dart Impact Test – ASTM D1998-06
3. The 7 Day Hunt Water Absorption Test – Maximum 3.0 lbs./cft. Foam Density – Minimum 1.0 pcf
5. Flexural Strength Test – ASTM C203 – Minimum 5.50 lbs.
6. Flame Retardant Test – ASTM D4986-03
7. Certified Tank Tested Buoyancy

Manufactured by HPI



- Call **800-262-2275** to find out **How to determine the Best Foundation & ROI!**
- *We want to partner with you for all your dock flotation requirements!*