

# Float Drum Specifications

## Tiger Docks™ Marine Float Drum Encasements:

All units are manufactured from linear virgin polyethylene resin containing UV ray inhibitors and carbon black pigment to protect against ultra-violet deterioration. These resins offer a balance of toughness, rigidity, environmental stress crack resistance and low temperature impact performance. Resin is also in compliance with the FDA title 21. This is a food grade material that will not contaminate the waterways and is recyclable.

All units are rotationally molded for seamless, one piece construction. A nominal wall thickness of .15 is standard on all encasements unless a specific wall thickness is requested. These units are resistant to damage by animals, ice, bumps by watercraft and contact deterioration from petroleum products. They are suitable for outdoor use with respect to 746C and flame class UL-94HB. The encasements also meet the Hunt Falling Dart puncture and thickness test. All units will exhibit the following ASTM test methods.

Properties	ASTM	Units	Typical Units
Density	D-1505	b/cc	0.937
Melt Index (190c/21.6kg)	D-1238	g/10 min.	125
ESCR (100/gelpad, F-90)	D-1693 (B)	Hrs.	1000
Tensile Strength at yield, 2"/min.	D-638	Psi	2750
Elongation at Break	D-638	%	600
Flexural Modulus (1% Secant)	D-790	Psi	109,000
Low Temperature Impact	ARM-STD-40F	ft-lbs.	68
Brittleness temperature	D-746	0 deg. C	-90
Heat Distortion Temperature	D-648	0 deg. C	63

## Tiger Docks™ Marine Float Drum Contents:

All encasements are filled with polystyrene (EPS) beads. The EPS beads are steamed together to provide less water absorption and solid core for structural strength. The EPS contents have a 0.9-1.2 lbs. per cubic foot density with water absorption not to exceed three pounds per cubic foot in accordance with the Hunt Water Absorption Test. It will not sink or contaminate the water when punctured. The EPS contents conform to the ASTM C-578 and the Underwriters Laboratory standards. Regarding fire resistance; it passes the UL723, UL1975 and ASTM E84 tests. Below are other ASTM test results:

Properties	ASTM Test	Units	Value
Density	C-303	Min lb./ft3	0.90
Thermal Resistance	C-177 or C-518	Min R for 1" Thickness	
@ 25° F (-3.9° C)	C-158		4.20
25° F (-3.9° C)			4.00
25° F (-3.9° C)			3.60
25° F (-3.9° C)			3.25
Compressive resistance at Yield or 10% Deformation	D-1621	Min psi	10.0
Flexural Strength.	C-203	Min psi	25.0
Water Vapor Permeability	E-96	Max perm-in	5.0
Water Absorption	C-272	& by Vol Max	4.0
Dimensional Stability		Max %	2.0
Oxygen Index	D-2863	Min %	24.0
Coefficient of Thermal Expansion	D-696	In/in/°F	0.000035
Flash Ignition Temperature	D-1929	°F	824
Auto-Ignition Temperature	D-1929	°F	896
BTU Content	NFPA 259	BTU/lb.	17,245