

# LAST-A-FOAM<sup>®</sup> R-3300 Submersible Foam Series

## Product Description

LAST-A-FOAM<sup>®</sup> R-3300 is an easy-to-machine, pressure-resistant foam that provides buoyancy for underwater depths tested to 2,400 feet, when coated\*. The closed-cell structure of this series is uniquely engineered to withstand penetration by water and resist hydrostatic pressure. LAST-A-FOAM<sup>®</sup> R-3300 submersible foam is optimal for shallow to mid-water subsea buoyancy systems, marine and underwater robotics applications.

*\*Foam is supplied uncoated.*

## Features & Benefits

- Provides buoyancy with depths to 1,200 feet uncoated and 2,400 feet coated\*
- Excellent mechanical and insulation properties
- Easy to machine, coat, and paint
- Dimensionally stable
- Resistant to hydrostatic pressure
- High impact resistance
- Biologically inert
- Oil, grease, and solvent resistant
- Cost-effective solution
- Does not rot or decay
- Performs in freshwater and saltwater
- Compatible with many types of adhesives

## Sheet Sizes

Densities 12, 15, 18, 25 pcf available in sizes up to:

- 14" x 18" x 100"
- 10" x 24" x 100"

*Custom sizes are available upon request*

## Depth Chart

Product	Density (lbs/ft <sup>3</sup> )	Tested Depth (uncoated ft)	Tested Depth (coated* ft)
R-3312	12	300	700
R-3315	15	700	1,400
R-3318	18	800	1,600
R-3325	25	1,200	2,400

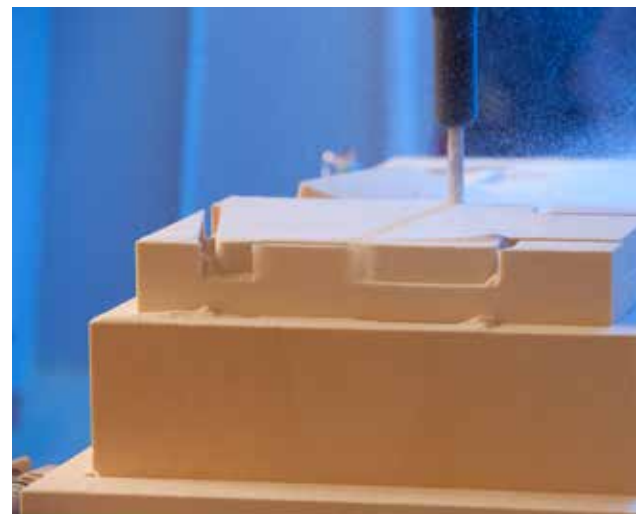
*\*Please note that these are nominal values.*

## Applications:

- Underwater buoyancy
- Underwater robotics (ROV/AUV)
- Semi-submersible craft
- Pipeline flotation
- Subsea mooring buoyancy
- Buoyancy for assembly components in weightlessness simulation pools
- Underwater pumps for offshore drilling rigs
- Core material for resin-transfer molding

## CNC Machinable

General Plastics can machine the LAST-A-FOAM<sup>®</sup> R-3300 product to exact specifications.



General Plastics is certified to ISO 9001:2008/AS9100C and meets demanding quality systems such as NQA-1, Mil-I-45208A, and Boeing Company D6-82479.

## Physical and Thermal Property Data

	R-3312	R-3315	R-3318	R-3325	Test Method
Density lbs/ft <sup>3</sup>	12	15	18	25	ASTM D-1622
Shore D Hardness	24	29	37	46	ASTM D-2240
Glass Transition Temperature (T <sub>g</sub> ) °F	265	261	263	260	ASTM E-1824
Coefficient of Thermal Expansion (CTE) in/in °F	32 x 10 <sup>-6</sup>				From -50 to +200°F, GP Method
Flexural Strength, psi	579	917	1217	1875	ASTM D-790 Method 1-A
Flexural Modulus, psi	17594	26118	34803	53981	ASTM D-790 Method 1-A
Compressive Strength, psi	411	718	967	1748	ASTM D-1621
Compressive Modulus, psi	12541	19554	25207	48671	ASTM D-1621
Tensile Strength, psi	436	679	816	1479	ASTM D-1623 Type A Specimens
Shear Strength, psi	199	234	279	327	ASTM C-273
Shear Modulus, psi	1947	2197	2431	2830	ASTM C-273
Tumbling Friability (% weight loss)	2.4	1.4	1.2	0.5	ASTM C-421 (20 mins. @ 60 rpm)
Hydrostatic Testing 135 psi Weight Gain (%)	Pass*				GP Method based on ASTM D-570
Hydrostatic Testing 310 psi Weight Gain (%)		Pass*			
Hydrostatic Testing 350 psi Weight Gain (%)			Pass*		
Hydrostatic Testing 530 psi Weight Gain (%)				Pass*	
Depths Uncoated, Feet (Meters)	300 (91)	700 (213)	800 (244)	1,200 (366)	
Depths Coated, Feet (Meters)	700 (213)	1,400 (427)	1,600 (488)	2,400 (732)	

Pass\* <5% weight gain and <1% Volume Change

\*This data is subject to revision and changes due to development of and changes to the material. The data is derived from tests and historical usage. The data is averaged data and should be treated as such. Calculations should be verified by actual tests. The data is furnished without liability for the company and does not constitute a warranty or representation in respect to the material or its use. The company reserves the right to release new data sheets in replacement.

The Hydrostatic GP Test Method is a tested depth, given in Feet of Seawater (FSW) in which a cut cube of material (closed-cell rigid foam) subjected to pressure underwater shows very low water absorption of <5% weight gain and very low volume change of <1% after 24 hours of water submersion at the depth.



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**TF (800) 806.6051 PH (253) 473-5000**

4910 Burlington Way • Tacoma, Washington 98409  
sales@generalplastics.com • www.generalplastics.com

All General Plastics products are manufactured in the United States, and are free of CFCs and VOCs.

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