

# **RiteFloat RF Series** Flotation Foam (Formerly UI 7500)

#### **General Description**

RiteFloat (UI 7500) is a closed cell polyurethane foam used in pontoons – both external and internal – of floating roof storage tanks. The purpose of installing the RiteFloat in pontoons is to prevent them from leaking and causing the roof to sink. RiteFloat acts as a fire retardant and provides corrosion resistance to water and hydrocarbons including crude oil, diesel, gasoline, and jet fuel. This foam may also be used in double wall tanks and vessels such as barges.

Meets or exceeds Mil Spec P-21929B

#### **Mixing and Thinning Instructions:**

RiteFloat should be applied 1:1 by volume Part A to Part B, preferably with a plural component spray machine. Compartment does not need to be clean or dry, but do not insert into pontoons with more than  $\frac{1}{4}$  liquids.

#### **Coverage:**

Theoretical coverage is 2.5 lbs RiteFloat per cubic foot of space to be filled. (Consult your Riteks Technical Representative for recommendations).

#### Clean up:

Clean all equipment immediately after use with methyl ethyl ketone (MEK), acetone, or DOP solvents. Use clean solvent only. In case of spill, absorb and dispose of in accordance with Local, State, and/or Federal regulations.



FOR PROFFESIONAL USE ONLY NOT FOR RESIDENTIAL USE KEEP OUT OF REACH OF CHILDREN

### **Typical Component Properties**

Viscosity	Part A Polymeric MDI	Part B Polyol Blend
@ 77°F (25° C), cps	200	120
@ 77°F (25° C), g/mL	1.24	1.14
% by volume	50	50

#### **Typical Reactive Properties**

Hand Mix Reactivity @ 77°F (25° C)	
Cream Time – seconds	27
String Time – seconds	125
Cup Density, % by weight	2.5

Typical properties given do not constitute a supply specification.

#### Packaging/Storage

RiteFloat is available in 50-gallon steel drums. For additional packaging options, please contact your local Riteks representative.

Store indoors in original, tightly sealed container out of direct sunlight between 40°F (5°C) and 100°F (38°C), 0% to 90% relative humidity. Warranted shelf life is 1 year from date of manufacture (DOM) in original unopened and properly stored container.

### Safety, Health and Environmental Info:

Before handling or using this product please refer to the Safety Data Sheet for complete health, safety and environmental information. Dispose of waste in accordance with local, state, and federal regulations.

Avoid contact with skin and use good ventilation. Wear chemically resistant gloves (nitrile are recommended) and chemical safety glasses. If skin contact is made, wash immediately with soap and water. Do NOT use solvents to clean skin.



# **Performance Data** Coatings, Sealants & Adhesives

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### **Typical Foam Properties**

Density, ASTM D-1622	
Molded, overall	3.4
Core, pcf	2.8
Compressive Strength	
10% deflection, ASTM D-1621	
Parallel, psi	25.1
Perpendicular, psi	31.4
Compressive Strength Change	
Mil-P-21929B, % change	19.0
(after humid aging)	3
Initial K-Factor, ASTM C-518	
BTU in/hr sq. ft. °F	0.149
Shear Strength	
ASTM C-273, psi	25.9
Tensile Strength	
ASTM D-1623, psi	35.0
Water Absorption	
ASTM D-2842, lbs/sq. ft.	0.076
% by Volume	4.4
Tumbling Friability	
ASTM C-421, % loss	9.7

Closed Cell Content			
ASTM D-2856, %	83		
Compression Set			
Mil-P-21929B, % loss	0.79		
Oil Resistance			
ASTM D-471 Mil-P-21929B	Pass		
Fire Resistance			
ASTM D-1692 Mil-P-21929B	Pass		
Dimensional Stability			

	ASTM D-2126, %	volume cha	inge
	@ -20°F	@ 158°F	@158°F & 100% RH
	(-29°C)	(70°C)	(70°C)
1 Day	0.04	1.6	3.3
7 Days	0.07	4.6	5.8
14 Days	-0.02	4.6	6.4
28 Davs	0.22	5.4	7.5

RiteFloat has been tested against the following media:

•	Gasoline	Pass
•	Crude Oil	Pass
•	Water	Pass
•	Salt Water	Pass
•	Naphtha	Pass
٠	Xylene	Pass
٠	Toluene	Pass
٠	Diesel Fuel	Pass
٠	MEK	Not Recommended
•	Ethanol	Not Recommended







# **Comparison of Pontoon Repair Methods**

COMPARISON OF PONTOON REPAIR METHODS				
	WELDING	PLASTIC BALLS	BLADDER	RITEFLOAT
STOPS ROOF FROM SINKING	YES	YES	YES	YES
STOPS THE LEAK(S)	YES	NO	NO	YES
CAN BE DONE IN-SERVICE	NO	YES	YES	YES
STOPS VAPOR EMISSIONS	YES	NO	NO	YES
REDUCES FIRE THREAT	YES	NO	NO	YES
CAN BE COMPLETED QUICKLY	NO	YES	YES	YES
INCREASES ROOF STABILITY	NO	NO	NO	YES
CONSIDERED A PERMANENT REPAIR	YES	NO	NO	YES

- Plastic balls can provide a maximum of 60% flotation buoyancy and extensive leaking may still cause the roof to sink.
- Over time, sharp objects within the pontoon may puncture the bladder, causing failure.

# **Positive Cost Impact:**

# Estimated Cost Savings Utilizing RiteFloat Flotation Foam for Pontoons of Floating Roofs

Tank Diameter	Barrel Capacity	Crude Oil Inventory Cost per Day	Total Crude Oil Inventory Cost per Day
140 ft	137.1 Mbbl	\$0.90 / bbl	\$123,390 / Day

ltems	Typical Welded Pontoon Repair	RiteFloat Installation	VALUE ADDED
Days out of Service	30	0	
Labor Repair/ Installation Cost	\$.3M	\$20K	\$4.0M
Estimated Lost Revenue	\$3.7M		per tank
Total Cost	\$4.0M	\$20K	

\*Estimated values based on customer data

# **RiteFloat RF Series**

## Flotation Foam (Formerly UI 7500) Case History

## 1) Ashdod Oil Refineries -

- Ashkelon Israel
- 2) **BHP** –
- Terminal Trinidad
- 3) **BP** –
- Terminal Trinidad
- Terminal The Netherlands

## 4) Chevron –

- Australia
- Venezuela
- South Africa
- North America
- 5) **Citgo** –
- Sulphur, LA
- 6) ConocoPhillips –
- Humber Refinery United Kingdom
- 7) ExxonMobil
  - Baton Rouge Refinery Louisiana
- Beaumont Refinery Texas
- Fawley Refinery United Kingdom
- Deer Park Pipeline Terminal Texas
- 350' Barge located in St. James, LA
- 8) Europe Asia Pipeline Company -
- Ashkelon, Israel
- 9) Holly Refining -
- Salt Lake City Refinery Utah
- 10) Marathon Petroleum Co. –
- Refinery Kentucky
- 11) Magellan Midstream Partners –
- Texas Terminal(s)
- Oklahoma Terminal(s)
- Iowa Terminal(s)
- Tennessee Terminal(s)
- Kansas terminal(s)
- 12) Oil Tanking -
- Houston Terminal Texas
- 13) Pasadena Refining Systems, Inc. –
- Pasadena Refinery Texas

- 14) Sinclair –
- Sinclair Refinery Wyoming
- 15) STAT Oil LNG –
- Terminal Denmark
- Tankers Double Wall Storage Tanks

16) **South Riding Point Holdings (**now a Stat facility**)** –

- Terminal Bahamas
- 17) **Sunoco** –
- Eagle Point Refinery New Jersey
- Philadelphia Refinery Pennsylvania
- 18) **TEPPCO (**now Enterprise**) Pipeline** –
- Baytown Terminal Texas
- 19) **Tesoro** –
- Refinery North Dakota
- 20) **Valero** –
- Norco Refinery Louisiana
- Paulsboro Refinery New Jersey
- Memphis Refinery Tennessee
- Aruba Refineries
- 300' Barge located in Memphis, TN

# 21) Venoco Company –

- Refinery California
- 22) **US Navy** –
- Norfolk, VA
- Pascagoula, MS

23) Multiple Patrol Boats during Vietnam War (1955-1975) varying in size (50'-175')

for the **United States Navy Mil-P-21929**. Modifications for high heat and chemical resistance followed by density improvements for multiple applications outside of marine and military use.

## 24) Misc. Vessels:

- Denmark
- Middle East
- Caribbean
- Europe



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