

Flexible Fuel Tanks



Magam-Safety Israel 6 Hasadna I.Z. Ziporit, Israel T: +972.73.2665800

F: +972.4.6412118

Email: info@magam-safety.com

Magam-Safety USA Saratoga, CA, USA

T: +1.408.480.6494

Email: <u>USA@magam-safety.com</u>



Flexible fuel tanks

Flexible fuel tanks, are used in modern military applications for liquid storage and transportation as a more effective and safe means of fuel containment. Its most popular use, in place of integral or metal tanks, is in military aircraft and in armored fighting vehicles (AFVs).

Magam Safety's customized design and production techniques have perfected these products through the years. Large numbers of Magam's flexible fuel cells are installed in all types of military aircraft and armored vehicles all over the world.

Due to improved materials engineering and production techniques, Magam's laminated, flexible rubber fuel cells, are significantly lighter than the rigid fuel tank structure they aim to replace. Coupled with the easy and rapid repair process of a damaged cell, the flexible fuel cell has became the fuel storage method of choice of land, air and sea combat equipment designers as well as civilian aircraft design engineers.

Magam Safety Ltd. Designs customized shaped cells per their customers' requirements. The cells are manufactures to provide the maximum safety (according to the mission of the host structure); easy field repair or replacement. Their shape and their self sealing characteristics are determined by their location within the host structure and are offered in three major types of tanks:

- 1. A single layer (non-self sealing) fuel cell
- 2. A flexible, completely self sealing fuel cell
- 3. A fuel cell with selective self sealing surfaces

In normal operation conditions, these fuel cells are expected to last for up to fifty years. The longevity depends on the quality of the construction materials, manufacturing process, workmanship, quantity of aromatics in the fuel used, lack of fuel for prolonged periods of time and extreme climate conditions.

Magam-Safety Israel 6 Hasadna I.Z. Ziporit, Israel T: +972.73.2665800

F: +972.4.6412118

Email: info@magam-safety.com

Magam-Safety USA Saratoga, CA, USA

T: +1.408.480.6494

Email: USA@magam-safety.com



Flexible Diesel fuel tanks specifications:

Test	Method	Requirement
Test	Method	Requirement
Hardness	D ASTM 2240 - 05	55-65
(0)		
(Shore A)		
Tensile Strength	06a 412-D ASTM	min kg/cm ² 150
Elongation	06a 412-D ASTM	min 500 %
Compression Set	D AS TM395 – 03B METHOD	
Complession set	D A5 IM395 - 03B METHOD	
	Hours 24 .70 °Temperature C	
	Compression to - 75% original thickness.	
	Compression to - 75% original unexhess.	max 35 %
Diesel fuel swelling	12a 471 –D ASTM	
C hange in strength	166 Hours .70 ° Temperature C	max - 50 %
	-	
Change in elongation		max - 30 %
Hot air Erosion	04 573 –D ASTM	
	70 400 0 m	
	Hours 70 .100 ° Temperature C	
Change in hardness		max + 10
Change in atmosph		max - 15 %
C hange in strength		111ax - 10 %
Change in elongation		max - 30 %
	– 15 C°Temperature	
Low temperature resistance	min. 30	No Cracks
fuel B Swelling	.25 °Hours C 22	
	D AS TM 471 –12a	
	D 110 111 77 1 -12a	Max + 30%
C hange in the volume		

Magam-Safety Israel 6 Hasadna I.Z. Ziporit, Israel

T: +972.73.2665800 F: +972.4.6412118

Email: info@magam-safety.com

Magam-Safety USA Saratoga, CA, USA

T: +1.408.480.6494

Email: <u>USA@magam-safety.com</u>





