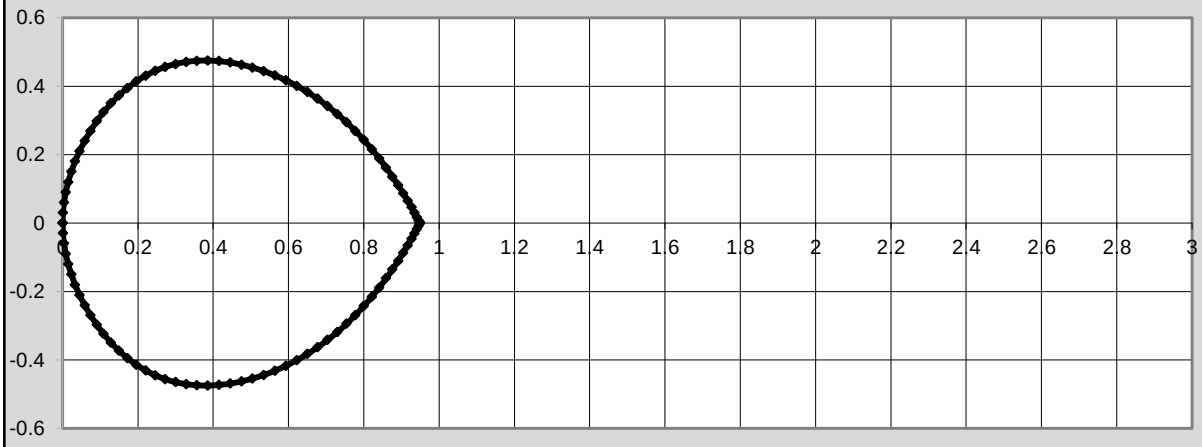
Airship Envelope Datasheet

Identifier:	Guiding Balloon EU V3	Date of Design:	2021-09-16
Designed by:	Windreiter Team	Date of Production:	
Organisation:	Windreiter	Place of Production:	Windreiter HQ



Material Parameter		Gertler Shape Coefficients	
Envelope Material:	TritaX Silver	Position of max. thickness:	0.4
Surface Weight [g/m²]:	30	Bow Radius:	0.5
Tension Strength [MPa]:	245	Stern Radius:	0
Bonding Technique:	Point Welding	Prismatic Coefficient:	0.6

Design Parameter		Lift Assumptions*	
Length to Diameter:	1.000	Lift at Sea Level He [g]:	197.15
Block Volume [m³]:	0.600	Lift at 300 m Helium [g]:	189.92
Block Coefficient:	0.471	Lift at Sea Level H2 [g]:	212.45
Envelope Volume [l]:	282.74	Lift at 300 m H2 [g]:	204.67
Length [m]:	0.95	*The calculations assume pure lifting gas	
Diameter [m]:	0.95	4x dynema ropes, tied together.	
Surface Area [m²]:	2.85		
Envelope Weight [g]:	85.60		
Number of gores	4		

Balloon Handling Notes

Fill the balloon until wrinkles start to dissapear.

Seal the balloon with the clip after folding the tube multiple times.

Store the balloon either filled or relase all lifting gas.
Use a vacuum cleaner to fully remove all gas.
Fold the balloon carefully flat as it was shipped.
This ensures a long lifetime of the material.