

FLEXITANK

INFINITY BULK LOGISTICS SDN BHD

Integration • End to End • Multimodal Transport Operator • Logistics Engineering • Lead Logistics Provider • Network • Advisory and Consultation • Supply Chain Management
Palm Oil Base • Rubber and Latex • Iron and Steel • Minerals • Construction Materials • Polymers • Fast Moving Consumer Goods • Grains & Feed
Systems & Processes • Information & Communication Technology • Infrastructure • Innovation • Knowledge & Experience • Stakeholders • Finance • Corporate Governance





A subsidiary of Infinity Logistics & Transport



Paid Up Capital of RM1 million / USD 333 thousand



A Manufacturer and Operator of Multilayered Flexitank.
Produced 35,000 Flexitanks in Year 2011



Regional operator with Global partnership



Compliant to COA Code of Practice



BOARD OF DIRECTORS



Ethan Kwan
Executive Director



Chan Kong Yew
Managing Director



Vanessa Lo
Finance & Admin Director



Teo Guan Kee
Technical Director

FUNCTIONAL HEAD OF DEPARTMENT



Kwan Siew Mun
Customer Service
Manager



James Kwan
Marketing
General Manager



Cheah Tan Foong
Marketing
Manager



Wan Sek Choon
Quality Assurance
Manager



Astin Gan
Operations
Manager



Tan Pang Wee
Finance & Accounts
Manager

BRANCHES HEAD



Somchai
Hatyai Branch
Manager



Suthida
Thailand Branch
Manager



Kenty
Belawan Branch
Manager



Nuriyati
Jakarta Branch
Manager



Lim Chin Teik
Singapore Branch
Manager



Mai Trang
Vietnam Branch
Manager



To be a leading global Flexitank operator with World-class services



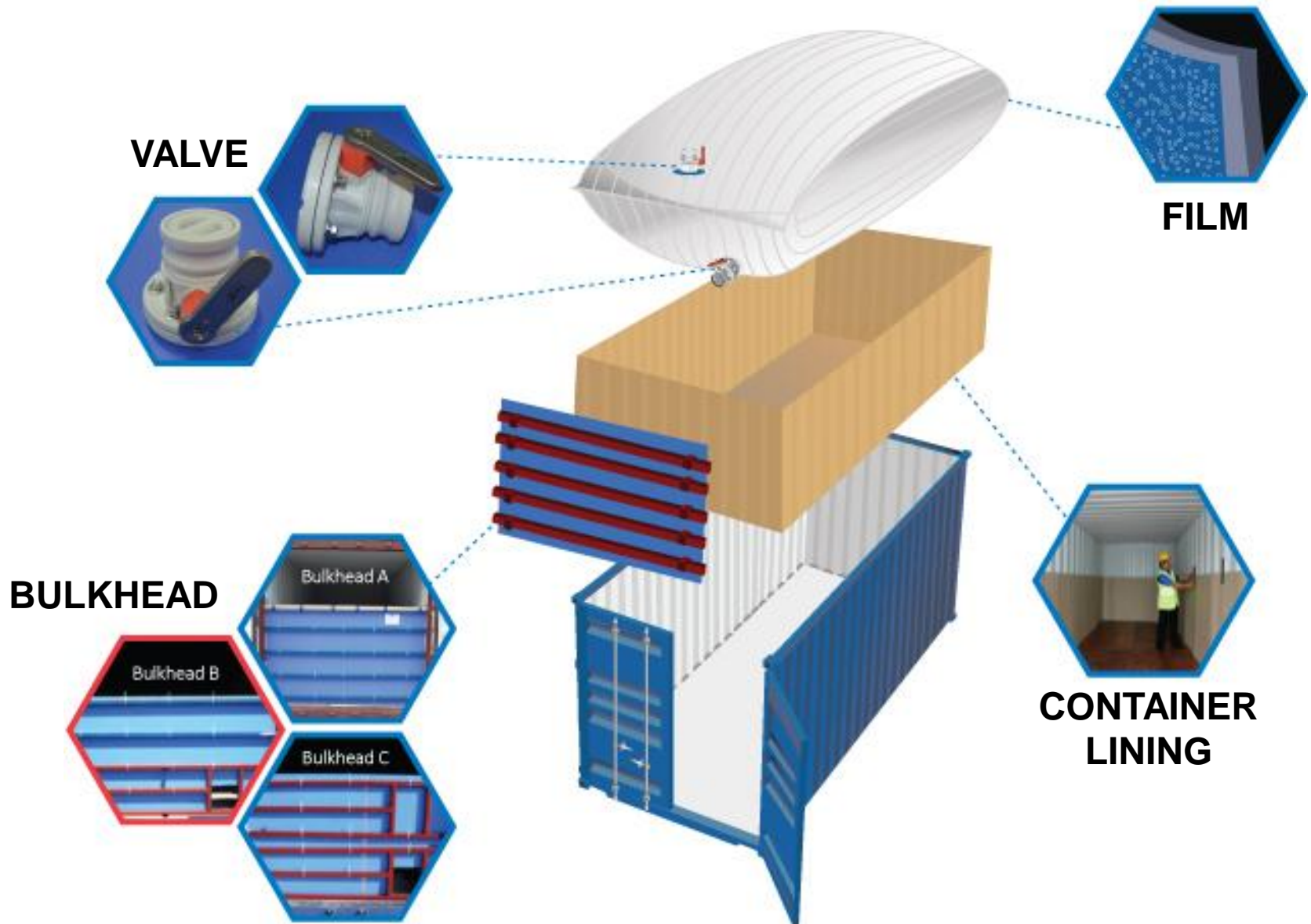
To be an excellent liquid logistics operator that emphasize on quality, responsibility and customer care



- Infinity Bulk Logistics is a manufacturer of Flexitanks that can be customized to meet different users' requirements
- Our manufacturing facilities are located in Port Klang, Malaysia and Qingdao, China
- We have a total production capacity of 80,000 Flexitanks per annum



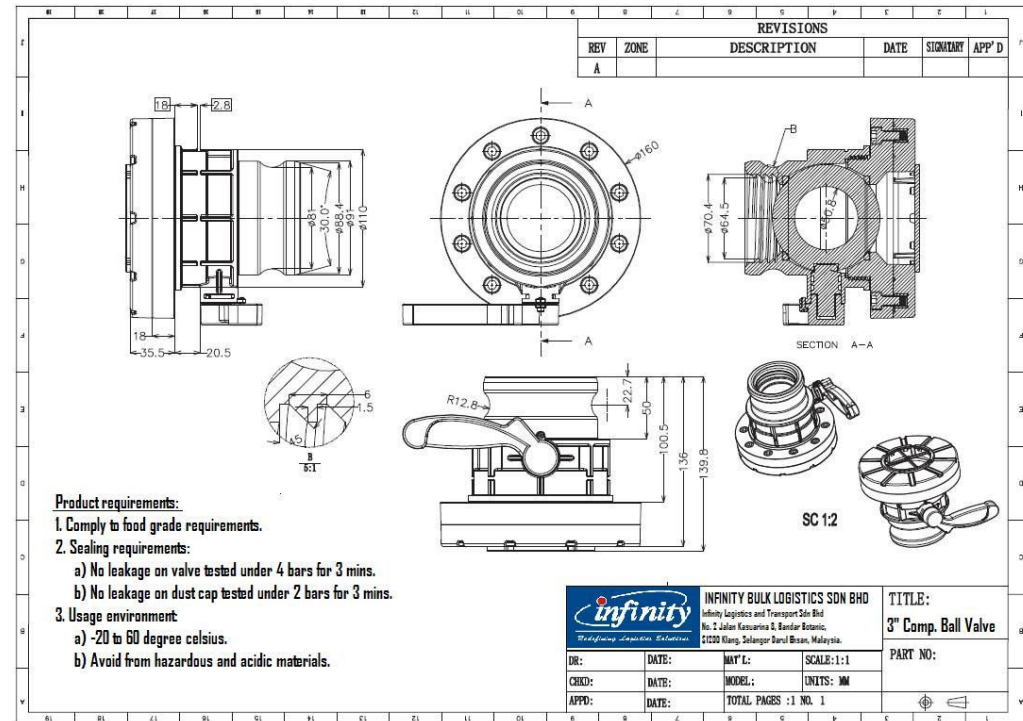




- **Delta Tank (Standard)**
 - 20' bulk container liner made from **4 layers** of 125 micron Polyethylene sewn into a woven Polypropylene outer
- **Gamma Tank (Economic)**
 - 20' bulk container liner made from **3 layers** of 125 micron Polyethylene
- **Beta Tank (Simple)**
 - 20' bulk container liner made from 2 layers of 125 micron Polyethylene sewn into a woven Polypropylene outer
- **Epsilon Tank (Superior)**
 - 20' bulk container liner consist of **4-5 layers** (3 or 4 layers of 125 micron Polyethylene, 1 layer of aluminum laminated film **OR** EVOH Barrier Film of 100 micron) sewn into a woven Polypropylene outer



- We have 2 types of valve, butterfly & ball valve
 - 3" PP (food grade) Butterfly Valve
 - 3" PP (food grade) Ball Valve
 - Our 3" Compression Valve design standard is in accordance with ISO9393-1 \ ISO9393-2
 - Can handle pressure of 4 bar and Open and Close Torque of 2.8--3.4 Nm



- Our Film is made entirely from FDA Polyethylene; listed as approved in SI 3145, and additive listed as approves in EU directive 93/3/EC
- Our 20' bulk container liner made from 3-ply or more plies of 125 microns Polyethylene
- Optional EVOH / PE Liner is available as an Oxygen barrier and protective layer, preventing chemical, vapor or gases from infiltrating into your product



- A PP woven is a Flexitank outer layer which helps to support the Flexitank and stabilizes the liquid dynamics
- It is made out of 180 ± 30 gr/sq.m. laminated PP Fabric
- Our PP Woven has a strong yarn count that is able to withstand an elongation of about 15% and tensile strength of 190kg (Warp) and 130kg (Weft)



- A Bulkhead is a retaining walls that holds / blocks the Flexitank from when it is fully loaded. We offer 3 types of Bulkhead
 - Bulkhead A consist of 5 steel bars and is use together with Top Load / Top Discharge Flexitank
 - Bulkhead B consist of 2 steel bars and is use together with Top Load / Bottom Discharge Flexitank and Bottom Load / Bottom Discharge Flexitank
 - Bulkhead C consist of 2 steel frames and can be use with any type of Flexitank

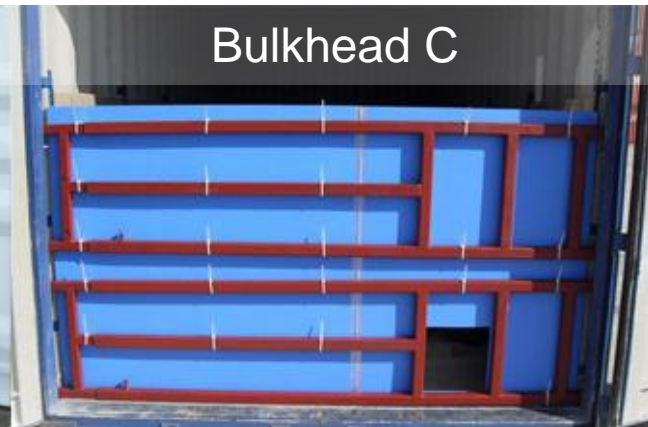
Bulkhead A



Bulkhead B



Bulkhead C







HEATING PAD



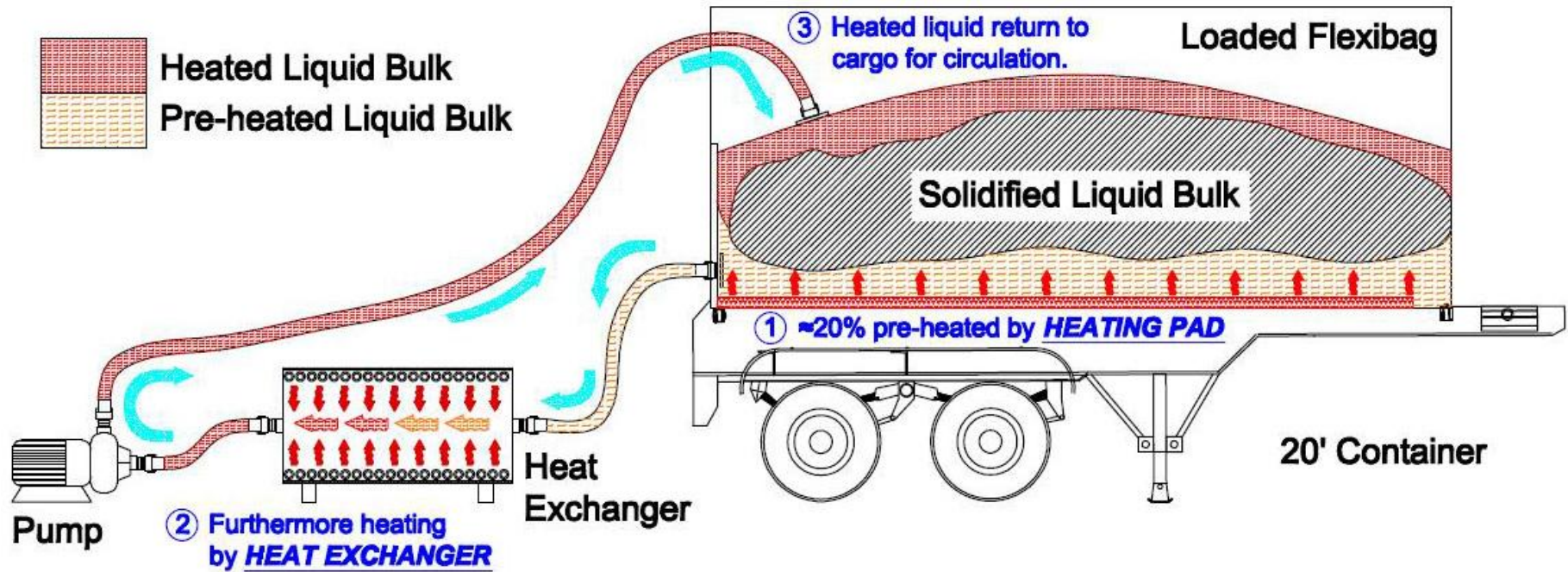
INSULATION LINER



TUB LINER

- Heating Pad
 - To liquefy solidified cargo at point of discharge
 - Maximum heat input provided by wet low pressure steam is 124°C and maximum pressure is 300PSI (20 Bar)
 - We have one standard heating pad and one U-shape heating pad

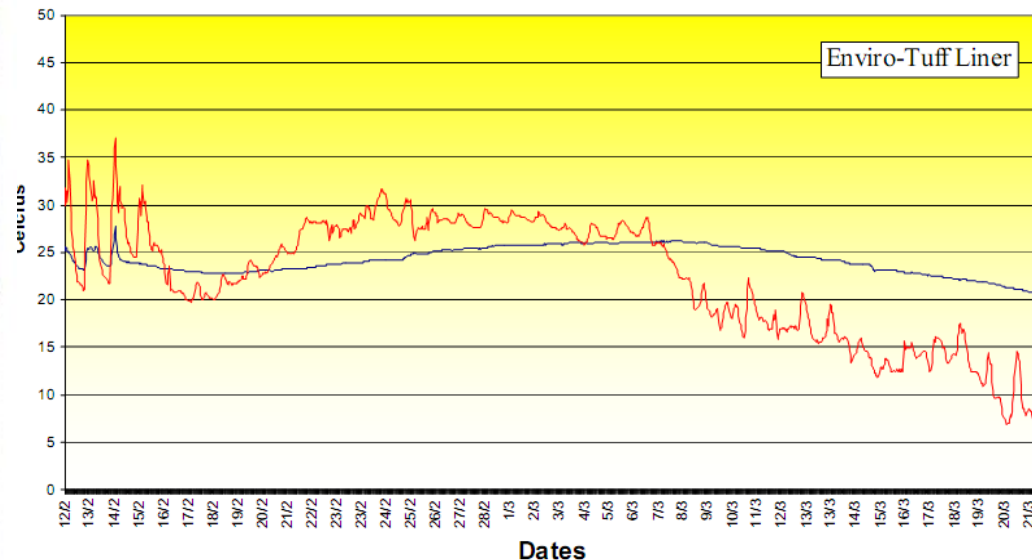




- Insulation Liner
 - To reduce the rate of temperature fluctuation enabling product to retain their original characteristics as much as possible
 - It has a weight of 175gsm \pm 20gsm and has a water vapor transmission rate of less than 0.09g/m²/day
 - Benefits : Easy handling, Reduces temperature fluctuation, Easy installation, ISO shipping containers compatible



ETL Average Temperature v. No Liner Average



- Tub Liner
 - It is made out of 125 micron Polyethylene
 - Acts as a protective layer for the Flexitank
 - Contained leakage can be recovered by pumping it out – less wastage
 - Losses can be measured accurately as we can weight the tub with or without the spillage
 - Leakage is contained within the Tub Liner and container will be free from liquid stain and eliminate the cost of cleaning
 - Recyclable and complete biodegradable







- Join PP Woven
- 2 piece Sewing Construction
- Maximum load of 714.2759 N
- Has a Tensile Strength of 31.7456 Mpa
- Elongation of 17.4%

1st
Version



- Tubular PP Woven
- 1 Piece Construction, No Joint on Side
- Max. Load of 1870.89N
(>2.5x stronger than 2 piece construction)
- Tensile Strength of 83.15Mpa
- Elongation of 15.5% (10% more holding strength than 2 piece construction)

2nd
Version



- Manual Sealing
- Draw back: Overheated due to inconsistency duration of sealing and uneven force distribution.



1st
Version



- Automated Sealing
- Drawback: Better control in heat and force distribution.



2nd
Version



- Gland Type
- Welded to PE film
- Drawback: Cracked gland and unable to check on every round sealing



1st
Version



- Compress Type
- Compress woven and film together
- Drawback: Every bolts on valve are screwed evenly to ensure no leakage happens.

2nd
Version

- Raw Materials:
 - Polyethylene Film- Tensile test every hour by manufacturer
 - Polypropylene Woven- Tensile test by manufacturer
 - Valves- 100% leakage test by Infinity
- Assembly works:
 - Sealing works- 100% pressure test on seal by Infinity
 - Valves assembly- 100% vacuum test on valve area by Infinity
- Finished goods:
 - Final products- 10% overall inspection by Infinity
 - Final products- 1% inflate test by Infinity





CONTAINER OWNERS ASSOCIATION

COA-Recommended Code of Practice for Flexitanks

A Recommended Code of Practice, developed by the Container Owners Association, for the Testing and Manufacturing of Flexitanks and for the Operation of Flexitank/20ft Container Combinations

COA Flexitank Code of Practice:
Version dated 4 May 2009

www.containerownersassociation.org

COA CODE OF PRACTICE- 5 Key Points

- Container Selection for Transporting Flexitanks must be specified and tested according to ISO 1496
- Flexitank/Container Combination to undergo Rail Impact Test & Materials Testing
- Adhesive warning and information labels should be placed on containers, enabling the instant identification of a Flexitank Container Combination and any dangers that may be present if warnings are not heeded
- Flexitank operators are to deal with incidents; and it also covers the minimum level of insurance cover that is required for Flexitank manufacture and operation
- All parties in the Flexitank manufacturing and transport chain should participate in appropriate training courses



- Conduct in house quality control and perform vigorous testing in a controlled environment using advanced test equipment including ultrasonic leak detector
- We are certified to the quality management standards of ISO 9001:2008 and Kosher Certified by the London Beth Din Kashrut Division (KLBD)
- We comply to the COA Flexitank Code of Practice
- We are also preparing the facilities for HALAL and HACCP certifications



ISO 9001:2008



001



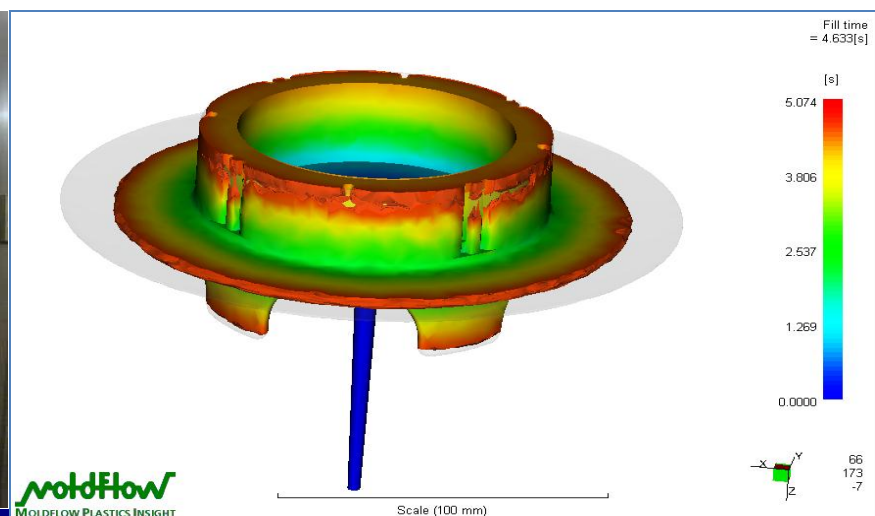
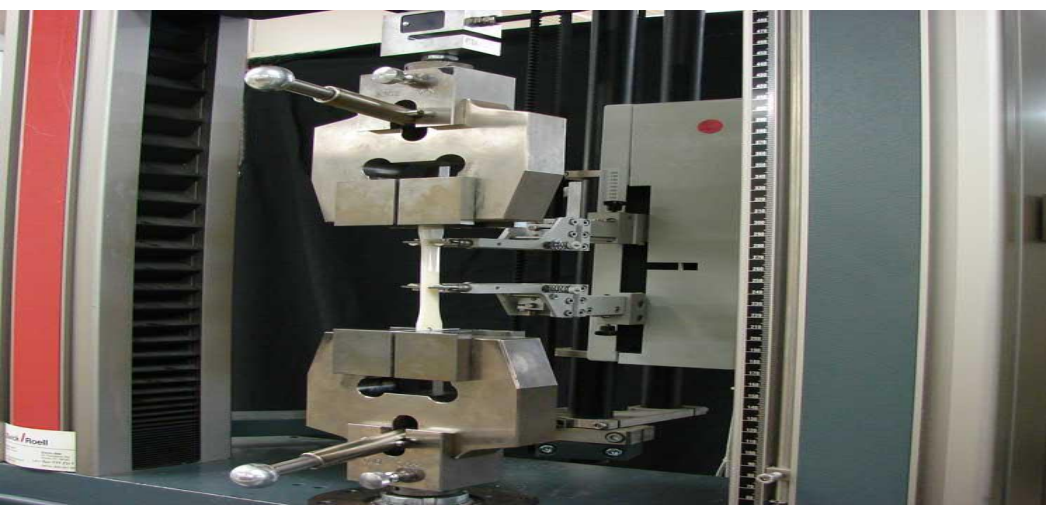
KOSHER



- Our Flexitanks have successfully undergone rail impact tests conducted by TUV Sud in Germany and Association of American Railroads in US.
 - Filled Flexitanks are loaded into a container on a wagon and being impacted at various speed similar to and routinely during actual handling and transportation ranging from 5 km/h to 12 km/h
 - Result : 1) Flexitanks came out intact
2) Container did not bulge
- Customer will be assured of the safety and integrity of their cargo when using our Flexitanks



- Melt Flow Rate (MFR) and Thermo Mechanical Analysis (TMA) undertaken by Mitsui, Japan
- SIRIM Bhd in Malaysia to ensure the parts can withstand the rigors of the freighting journey.
- We continuously work with Malaysia leading Industrial Research Institute, SIRIM, via technical consultation such as mould flow simulation, and product development evaluations to assure our products are of the highest standard achievable.



Animal Oils Ammonium Hydroxide Coconut Oil White Glue Dark Soy Sauce Glycerine Fruit Juices DETERGENTS Cube Oils EMULSIFIER Fatty Acid Glucose



Glucose SAUCES Natural Latex Syrup Vegetable Oils Fructose Plasticizers Synthetic Latex OLIVE OIL WINE Water Based Paints Surfactant

Food Grade and Non Hazardous Liquid

EMERGENCY RESPONSE PROCEDURE

- Our efficient and well trained Emergency Response Team is on call 24/7
- We provide Emergency Response services upon request in all major strategic locations.
- We work with an established worldwide insurance adjuster who acts as independent surveyor and will attend promptly whenever and wherever an incident is being reported



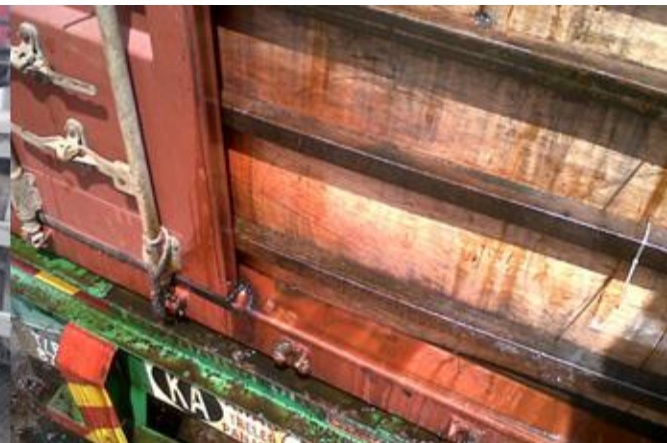
- To ensure the Fitting Team is equipped with the necessary competencies to perform their scope of duties
- To ensure their skills are update and upgraded periodically to reflect the industry current best practices
- A step-ladder training format with a qualification criteria for next-step progression



STEP	DESCRIPTION	QUALIFICATION CRITERIA
5	Program Director	By Management Appointment
4	Trainer	Installed 500 bags Min 25 loadings
3	Senior Installer	Installed 100 bags Attended at least 5 loadings
2	Installer	Installed 30 bags
1	Fitter	Completed all necessary training and pass test

CHAPTER	OUTLINE
Chapter 1	<ol style="list-style-type: none"> 1. Product Identification (Type of bags) 2. Installation Parts Lists
Chapter 2	Container Selection and Inspection
Chapter 3	<ol style="list-style-type: none"> 1. Flexitank installation sequence (do's or don't's) 2. Accessories installation Sequence
Chapter 4	<ol style="list-style-type: none"> 1. Pre-loading or Post loading and Safety measures 2. Discharging Sequence
Chapter 5	Emergency Response Procedure

- Our product and services are covered with combined Product and Public liability Insurance amounting to USD 5 million from the one single Underwriter
 - Our Product Liability is to cover bodily injury and property damage suffered by user due to manufacturing or installation defects
 - Our Public Liability covers all costs and expense of 3rd party litigation and claims arose from the manufacturing or installation defects



- It must be proven that the “loss” or “damage” arise from the Flexitank directly and not from 3rd parties
- Immediate Action when there is an occurrence leading to a claim
 - Make every effort to minimize the loss and/or prevent further loss
 - Notify your Cargo Insurance Company (MOC) / agents and IBL’s agent
 - Hold the Carrier responsible
- A notice of claim must be made to the Cargo Insurer (MOC) / Agent and Cargo owner are encourage to set up a Claim Reference File for each claim



- We strongly recommend cargo owners to be covered with Marine Cargo Insurance which protect you from loss arising factors not related to product defect such as rough handling or rough seas conditions
- We provide Marine Cargo insurance from the same Underwriter that would facilitate the claim process and all incidents would be attended promptly with minimum fuss
- We deliver services conscious of the need to protect the interest of our associates, clients and the public at large.



- Our Multimodal capability can assist in improving our customer's Supply Chain through the use of the same Flexitank from loading at the Supplier's Tank until discharge at Receiver's Tank without any Intermediary handling of cargo
- Benefits of Tank to Tank:
 - Does not require extensive handling for loading and discharging
 - Direct delivery to Tank offers excellent commercial advantage
 - Elimination of overheads cost
 - Peace of mind with One-Stop Solution



- Environmental preservation and Green Logistics have now become a global initiative and ought to be given adequate attention and concrete actions taken to manage our Carbon Footprint.
- Infinity Bulk Logistics being a responsible liquid logistics provider, ensures our Flexitanks:
 - Do not contaminate the environment
 - Is recyclable





INFINITY FLEXITANK GLOBAL NETWORK





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THANK YOU

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