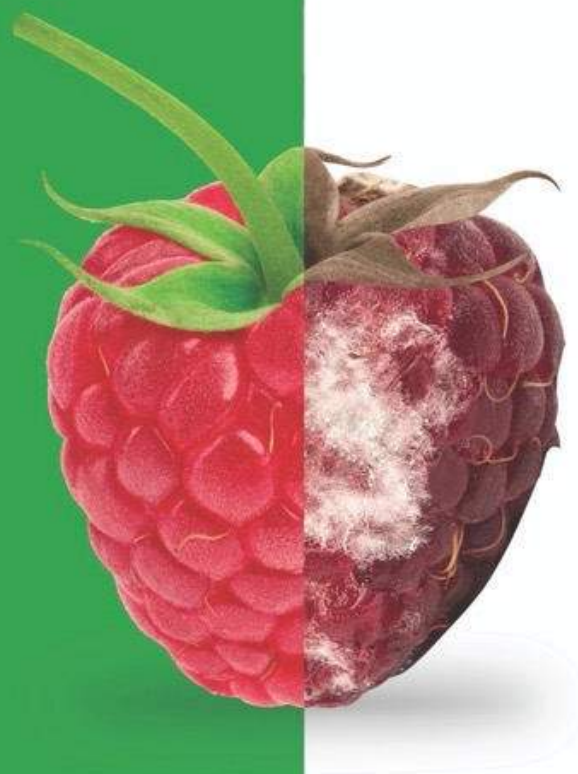




Shelf Life Extension Solutions

UP TO
5X
LIFE
EXTENSION



Reduce Dump rate by 30%





Biggest Range of Shelf life extension products worldwide

About us

About us



5X Shelf life

Increase fruits,
vegetables
and flowers
life



Global Support

We are
available in 45
countries
globally

Who are we?

Keep-It-Fresh is a registered Start-Up with Govt. of India working on increasing the shelf life of fresh produce. Keep-It-Fresh utilises several packaging technologies in combination for shelf life extension that reduces ethylene levels and lowers the respiration rate

Products

Anti-Microbial Films, Pads and Papers
Ethylene Adsorbers
Moisture Adsorbers
Oxygen Adsorbers
Modified Atmosphere Packaging
Sulfur Dioxide Release Packaging
Ethylene Filters
Ethylene Scrubber Machines

Standard we comply to!

Keep-It-Fresh products are FDA , BRC and Reach compliant
Keep-It-Fresh products are free of any harmful chemicals that are applied on Fresh Produce

Mfg Plants



California, USA KIF USA



Lyon, France LICENSE PARTNER



SOUTH AFRICA LICENSE PARTNER



Italy LICENSE PARTNER



Germany LICENSE PARTNER



Global Sites



India Sites

STARTUP INDIA REGISTERED

SALES MANAGERS PAN INDIA AND IN POLAND, SPAIN, CHILE, USA

MANUFACTURING LICENSE PARTNERS – MEXICO, SOUTH AFRICA AND ITALY

DISTRIBUTORS IN – USA, MEXICO, BRAZIL, ECAUDOR, POLAND, SOUTH AFRICA, VIETNAM, SAUDI ARABIA, UAE, SRI LANKA, TURKEY, UKRAINE

4 PATENTS APPLIED

RECOGNIZED BY PUSA KRISHI, DELHI UNIVERSITY, AGRICULTURE LABS IN SOUTH AFRICA, CANADA, GERMANY, TURKEY, SGS, INTERTEK ETC

Punjab MFG PLANT



Delhi, NCR WAREHOUSE



Delhi, NCR MFG PLANT



Mumbai WAREHOUSE



Chennai WAREHOUSE



Global Sales Team



Jaz Manak
CEO, USA
Founder USA



Ashley H.
CEO, UK



Mark T.
MD
Preservation



Shawn B.
Director
Canada



Stephen B.
MD
Germany



Sid Sareen
Director
Technical



Mukul Sareen
Director
Global Sales

Primary Founders



Monika G.
MD
East Europe



Eduardo
Head Sales
Mexico



Leonard P
VP Sales
USA



Asif A
Head Sales
East Europe



Horacio R.
Head Sales
Latin America



Ahmet
Head Sales
Turkey



Phillipps W.
Head Sales
Oceanic



Antoine B
Head Sales
France



Jhong Z
Head Sales
China



Dieter
Head Sales
South Africa



Ela C.
Manager
Customer Care



Export to 15+ countries

Clients



+ Over 200 clients in India

Target Customers



01

F&V Exporters

Example Desai, Mahindra Farms, Dole,



02

Ecommerce and Retailers F&V

Example - Milk Basket, Reliance Fresh, Big Basket



03

Cold Stores

Example – Supreme Agro, More Retail, Suri Fresh etc



04

Home

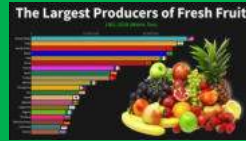
Example – Spencers, More, Metro Cash and Carry Etc



100% products we make are recyclable
70% are compostable



Our Presence



Distributor Developed
In last 1 year



USA



South Africa



Vietnam



Ukraine



Mexico



Indonesia



Brazil



Sri Lanka



Ecuador



Poland



Chile



Target to develop



Spain



Italy



France



Turkey



UK



Germany



Canada



Philippines



Australia

Exhibitions Participation



Fruit Logistica Berlin



Fruit Attraction Spain



Fruit Veggie Show Poland



Agritech Bangalore

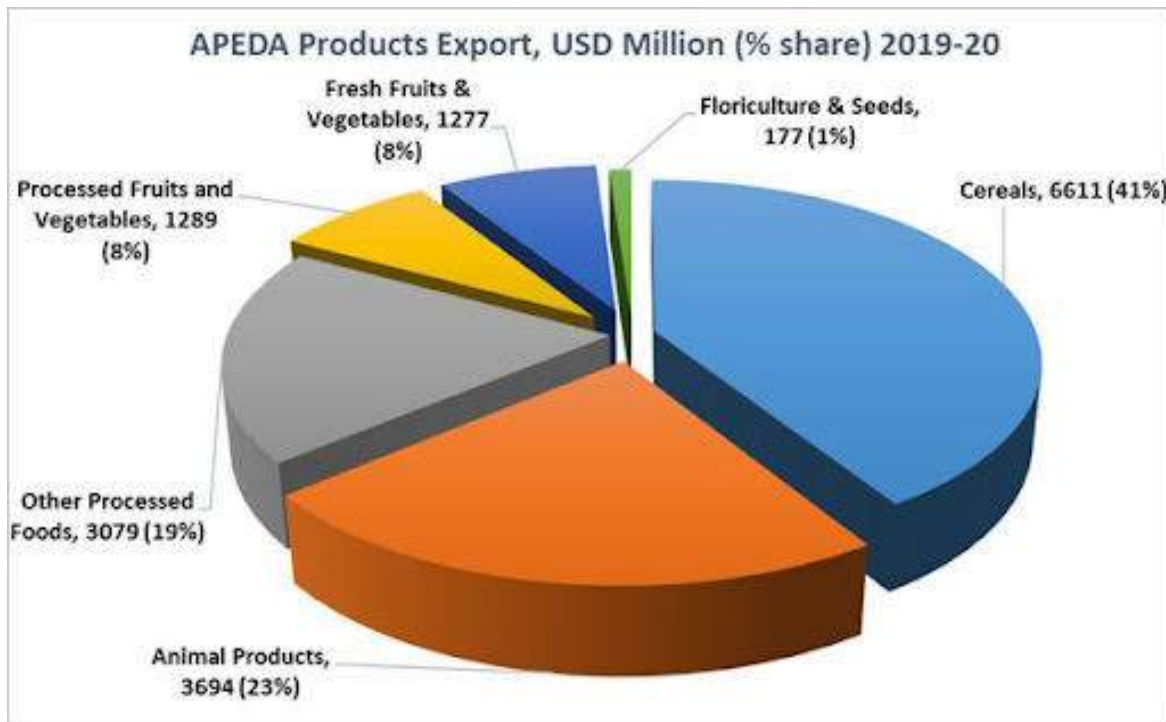


India Grape Forum Nashik



Fruit Veggie Show Delhi

Indian Exports



- India's share in the global market is still nearly 1% only, there is increasing acceptance of horticulture produce from the country.
- According to FAO (2019) the country ranks first in production of Bananas (26.08%), Papayas (44.05%) and Mangoes (including mangosteens and guavas) (45.89%).

News & Media



Industry Speak

Food Marketing and Technology Magazine, India had an opportunity to interact with Mukul Sreen and Siddharth Sreen, two young Directors of Hi-Tech Group. They have come up with a brand Dr Bio based on biopolymers. The company is passionate about sustainability and circular economy.



1. WHAT IS THE THOUGHT BEHIND DR BIO BRAND?

Hi-Tech group is a 38 years old manufacturer of many families, waste and films and has developed a new range of renewable and compostable bio-based biopolymers. It has been our vision to improve the sustainability and to anticipate market trends and future environmental regulations. Our biopolymers are produced from corn starch in the agriculture rich region of Punjab and are available in all countries. Hi-Tech Group's commitment towards sustainability is oriented to reduce the greenhouse gases impact, minimize the dependence on fossil oil derivatives, and promote the use of renewable energies and to reduce the plastic waste in the environment.

Dr Bio is another innovation from our stable, which is a testament to our vision and values. Dr Bio is India's only compostable polymer, which means the plastic made from this polymer will biodegrade after six months. That means that 50 percent or more of the plastic material will have been converted to CO2. The remaining share is converted into water and biomass, which no longer contains any plastic. No heavy metal contents and no harmful substances should be left behind.

2. HOW CHALLENGING IS IT TO COMMERCIALIZE A PRODUCT CONCEIVED IN A LAB?

Product has already been commercialized in various applications. There are various niche applications which we are working on with different client base including frozen food industry, meat packaging, drinking water bottles and carbonated drinks etc. where there are a lot of violations to be done. The applications in which it has already been established are cutlery, trays, packaging, thin films, stretch films and a lot of industrial and consumer grade packaging. We have also recently got our test reports by ISO 9001 and FDA 2 CFR testing to check the extrudable portions of the product coming into food contact. There are various other series of tests undergoing for validation of liquid packaging.

3. IT LOOKS LIKE IT IS GOING TO BE A SUPER HIT PRODUCT. WHAT ARE INITIAL HICUPS YOU ENJOYED?

The main production has already started for biopolymers. We are finding various avenues to create value in the supply chain of various organizations. The adaptability of the bio-polymer in current plastic has also been established through rigorous trials that have been undertaken in the recent past. Bio-polymer has been found suitable to be used in the manufacturing of pre-moulding, injection moulding and blow film extrusion lines in which the recyclable plastic has been in use. We are prospecting the products to various B2B and consumer based applications and working in parallel with various trade national corporations.

to incorporate this as an alternative technology product stream as compared to what they have been using so far in recycled plastics.

4. HAS THE PRODUCT BEING LAUNCHED IN THE MARKET OR IS IT AT THE STAGE OF GETTING TRUST IF NOT PLEASE DEFINE THE TIME LINE.

We have commercially launched Dr Bio and some customers have accepted it. We are also exporting the biopolymers to Europe, the US, South America and South Africa. We have started putting our product to e-commerce from us and so far, we have got good traction.

5. COULD YOU HIGHLIGHT A FEW KEY DIFFERENCE BETWEEN A PLANT BASED POLYMER AND THE EXISTING POLYMER?

Biopolymers (made out of plant based polymer) are a large family of different materials with widely varying properties. Deep in relations, such as bio-based PE or bio-based PET can be mechanically recycled, it established recycling streams. Biodegradable and compostable plastics can be organically recycled (industrial composting and anaerobic digestion). All bioplastics can also be treated in recovery systems (incineration and the production of renewable energy due to the bio-based origin). As with conventional plastics, the manner in which bioplastics waste is recovered depends on the type of the product, the biopolymers material used, as well as the volumes and recycling and recovery systems available.

Bioplastics (made out of plant based polymer) biodegrade after 12 weeks and completely biodegrade after six months that means 50% or more of plastic material will have been converted to CO2. The remaining share is converted into water and biomass, which no longer contains any plastic. No heavy metal contents and no harmful substances left behind. Tests are undergoing at CIPET.

The major advantage is that bio-based polymers replace fossil carbon in the production process with renewable carbon from biomass. This is indispensable for a sustainable, climate-friendly plastics industry.

The second advantage is offered by more than half of the produced bio-based polymers they are biodegradable (depending on the environment) and can therefore be a solution for plastics that

cannot be collected and enter the environment. This results in elimination of microplastics from our environment.

6. WHAT ARE ITS APPLICATIONS IN THE FOOD INDUSTRY?

We manufacture bio-degradable polymer and selling it to packaging industry. No up gradation of machinery is required for users using Dr Bio Polymer. We manufacture packaging material according to the need of customers. The products offered by the company are used in different sectors and applications such as fresh food packaging and folded cartons.

The final bio-plastic product contains no genetic traces. Therefore the resulting bioplastic product is well suited to use as food packaging as it contains no genetically modified material and cannot interact with the contents.

7. WHAT ARE ITS POSITIVE IMPACTS ON THE ENVIRONMENT?

According to some reports, India generates 40 million tons of waste (MTO) annually and this will reach 80 million tons in 2030. 40 million tons of municipal solid waste is collected annually, out of which 20 million is dumped in landfill sites and just 15 million is treated. Contrary to the composition of waste in western countries, the majority of solid waste is organic which means that there is a tremendous opportunity to compost it. This waste ends up in the landfills and result in polluting food ground water.

The usual methods of recycling are not that effective. For example, there is a limit to recycling paper and every kg of paper uses 10 litres of water to recycle which is counterproductive. Similarly the process of recycling aluminium and recyclable plastic has high capital costs and these processes themselves are unhygienic and unsafe. Even the recycled products are not of very high quality. The major advantage of Dr Bio is that the bio-based polymers replace fossil carbon in the production process with renewable carbon from biomass. This is indispensable for a sustainable, climate-friendly plastics industry. The second advantage is that they are biodegradable (depending on the environment) and can therefore be a solution for plastics that cannot be collected. This results in elimination of microplastics from our environment.

SMBSTORY

How this Gurugram-based company is solving plastic waste problems with its bio-polymers

By Shreya Pawar | August 24, 2021



Gurgaon-based Firm Begins Making Biopolymer from Corn Starch

© Packaging 360 | July 23, 2021

FINANCIAL EXPRESS

Bio-polymers: Smart solution for solving the plastic waste problem
Hi-Tech International's plant-based bio-polymer, Dr Bio, can be used to replace single-use and multi-use plastic products such as bottles, straws, cups, polybags and more.

By Sushil Choudhary, June 09, 2021 1:00 PM



SERVICES • CONTENT • SECTIONS • EVENTS • SUBSCRIBE



The Technology

Ethylene

MAP

SO₂

Oxygen

What do we control



Ethylene



Oxygen



CO₂




Moisture
• Fungus



SO₂
release

**NO
DEPOSIT**





What
problem do
we solve?



01

Dump ratio reduction

Shelf life extension solutions using Ethylene Adsorption, Modified Atmosphere Packaging, Anti Microbial packaging, SO2 gas release, & Oxygen absorption.

02

Pressure maintenance of fruits and vegies

Maintain the fruit pressure and hardness for a longer period of time

03

Fungal growth reduction

Improvement in quality of fruits to ensure they do not get contaminated on the shelf

04

Cost reduction

Provide extensive cost reduction based on improvement in shelf life

05

Geographical sales area expansion

Increases life of fresh products to enable you sell long distance nationally and internationally



Patents



Shelf life extension



1. Sachets

2. Boxes

3. Paper

4. Packaging Film

5. Anti Microbial Packaging

The Ethylene Problem



- Ethylene is a gas naturally produced by fruit as it ripens
- Ethylene works as an accelerator to the ripening process
- Ethylene increases ripening exponentially
- Ethylene adsorbers reduce the ripening rate by adsorbing the ethylene molecules.
- Ethylene molecules form a bond with the keep-it-fresh additives and are trapped

Ethylene Producing Fruits & Vegetables

Fruits & Vegetables	Ethylene Emission	Ethylene Sensitivity
Apples	High	Yes
Apricots	High	Yes
Avocados, ripe	High	Yes
Avocados, unripe	Low	Yes, Very
Bananas, green	Low	Yes
Bananas, ripe	Medium	No
Blackberries	Very Low	No
Blueberries	Very Low	No
Cantaloupe	Medium	Yes
Cherries	Very Low	No
Cucumbers	Very Low	Yes
Endive	No	No
Figs	Low	No
Grapefruit	Very Low	No
Grapes	Very Low	Yes
Guavas	Medium	Yes
Kiwi, ripe	High	Yes
Kiwi, unripe	Low	Yes, Very
Lemons	Very Low	No
Limes	Very Low	No
Lychees	Very Low	No
Mangoes	Medium	Yes
Melons, Honey Dew	Medium	Yes
Nectarines	High	No
Okra	Very Low	Yes
Oranges	Very Low	No
Papayas	Medium	Yes
Peaches	High	Yes
Pears	High	Yes
Pineapples	Very Low	No
Plums	High	Yes
Prunes	High	Yes



Products

Products

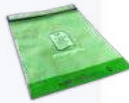
KIF Sachets



KIF sachets are available in variants of 5 gm and 10 gm. Our sachets have the unique ability to absorb ethylene and control



KIF MAP BAGS



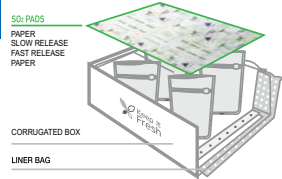
KIF modified atmospheric bags are universally used to pack fruits and vegetables. Our bags are available in custom sizes and printing.



KIF Grape & Berry Pads



Pads release SO₂ to extend life of produce to prevent it from fungus or mould on the fruit. It can extend shelf life up to 3 months.



KIF Scrubbers



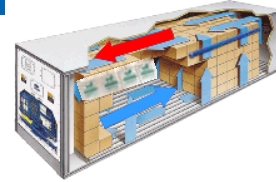
Ethylene Scrubber extends shelf life of fruits and veggies & minimizes loss due to decay & eliminates harmful preservation practices that use Nitrogen & Sulphur gas.



KIF Filters & Curtains



Curtains and filters are used for single or multiple trips in reefer containers. Usually 2-3 curtains are used for a trip of 7-14 days haulage period.



KIF Paper



Paper sheets and small chips are used in bulk boxes or retail boxes to extend shelf life. The paper should cover at least 50% of the top surface.



KIF Jiffy Pads



Jiffy Pads protect fruits from physical damages and Ethylene absorbers to reduce respiration rate of fruits



KIF Dry Pads



KIF-DRY Absorbent Fruit Pads are designed to absorb moisture and keep the packaging dry to reduce fungal and mould growth.



KIF Oxygen Absorbers



Oxygen absorbers are added to enclosed packaging to reduce the level of oxygen in the packaging. They are used to maintain product safety and extend shelf life.



KIF Flora Fresh



Flora Power is a clear fresh flower food formulated to hydrate and nourish fresh cut bulb flowers that results in a longer life.



Product

KIF Sachets



KIF sachets are available in variants of 5 gm and 10 gm. Our sachets have the unique ability to absorb ethylene and control



TECHNOLOGY

Ethylene Absorption
VBI
Natural Desiccant



Application

- Fruit corrugated boxes
- Vegetables corrugated boxes
- Fruits and vegetable crates
- Fruits and vegetables bags
- Flower boxes and bag packing
- Punnets and retail packs



SUITABLE FOR

Mangoes, Bananas,
Green Chili, Litchi,
Tomato, Apple,





Product

KIF MAP BAGS



KIF modified atmospheric bags are universally used to pack fruits and vegetables. Our bags are available in custom sizes and printing.



Application

- Retail MAP bags
- Export MAP packaging
- Fruits and vegetable crates
- Flower boxes and bag packing
- Punnets and retail packs
- Vaccum MAP Bags
- Thermo MAP bags



TECHNOLOGY

Ethylene Absorption
CO₂ and O₂ regulation
Moisture Regulation

SUITABLE FOR

All fruits and veggies



How the sachets work



Retail bags for home

KIF BAGS

- REMOVES ETHYLENE
- INCREASES SHELF LIFE
- PREVENTS MOULDS FUNGUS
- SAVES FOOD WASTAGE BY UPTO 40%
- DECREASES ODOUR
- LOWERS CROSS CONTAMINATION
- 100% RECYCLABLE
- 20 TIMES REUSABLE IN 2-3 MONTHS



UP TO
5X
LIFE
EXTENSION



Advantages of KIF Bags



WITH KIF



WITHOUT KIF



WITH KIF



WITHOUT KIF



WITH KIF



WITHOUT KIF



Product

KIF Grape & Berry Pads



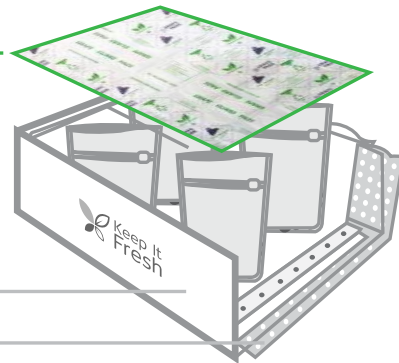
Pads release SO₂ to extend life of produce to prevent it from fungus or mould on the fruit. It can extend shelf life up to 3 months.

SO₂ PADS

PAPER
SLOW RELEASE
FAST RELEASE
PAPER

CORRUGATED BOX

LINER BAG



Application

- Export of grape boxes
- Export of berry boxes
- Punnets and retail packs



TECHNOLOGY

SO₂ release
Fungus eliminator

SUITABLE FOR

Grapes and all berries



Laboratory Testing



Visual representation from the top of SO₂ treated Crimson Seedless grapes after 5w and 8w cold storage (-0.5 °C) + 4d shelf life (10 °C)

Prevents Botrytis Fungus Decay
Reduces stem browning
Maintains Desicated stems
Reduces berry splits
Reduces lose berries
No SO2 damage

Sizes	- Active Content
25 x 32 cm	- 5 gm
35 x 47 cm	- 10 gm
25 x 47 cm	- 7 gm
35 x 51 cm	- 10/12 gm

Distributed by:





Grape Pads



Grapes Packaging Line



<https://www.youtube.com/watch?v=dX2vAWHFQWg>



KIF for Avocadoes



Avocadoes tests



No browning

No Sweating

Hardness
maintained

Avoids uneven
ripening or
checkerboarding

https://www.youtube.com/watch?v=_I9uPANvpce



Keep It Fresh BerriX Pads



Berri Pads





Product

KIF Kiffy Pads



Jiffy Pads protects fruits from physical damages and Ethylene absorbers to reduce respiration rate of fruits



Application

- Export of fruits boxes
- Domestic shipping of fruits
- Punnets and retail packs

TECHNOLOGY

Cushioning
Ethylene Absorption
CO₂ and O₂ regulation
Moisture Regulation

SUITABLE FOR

All fruits and veggies

KIFFY Pads



KIF Kiffy Pads



Kiffy pads on apples



Kiffy pads video

<https://www.youtube.com/watch?v=qKbVP5RQJeg>



Product

KIF Dry Pads



KIF-DRY Absorbent Fruit Pads are designed to absorb moisture and keep the packaging dry to reduce fungal and mould growth.



TECHNOLOGY

Moisture Regulation

Application

- Export of fruits & veggie boxes
- Domestic shipping of fruits
- Punnets and retail packs
- Used inside MAP bags

SUITABLE FOR

Suitable for berries, meats and leafy vegetables



Dry Pads



Dry Pads for berries



Dry Pads for meats



Dry Pads for fish





Dry Pads



- Keeps berries dry
- Reduces fungal growth
- No Adhesives used during manufacturing
- Reduces bruising of fruit





TECHNOLOGY

Product

KIF Scrubbers



Ethylene Scrubber extends shelf life of fruits and veggies & minimizes loss due to decay & eliminates harmful preservation practices that use Nitrogen & Sulphur gas.



Ethylene Absorption
VBI



Application

- Fruit cold storage warehouse
- Vegetables storage warehouses



SUITABLE FOR

Suitable for fruits and
veggies cold stores

How the Machine works



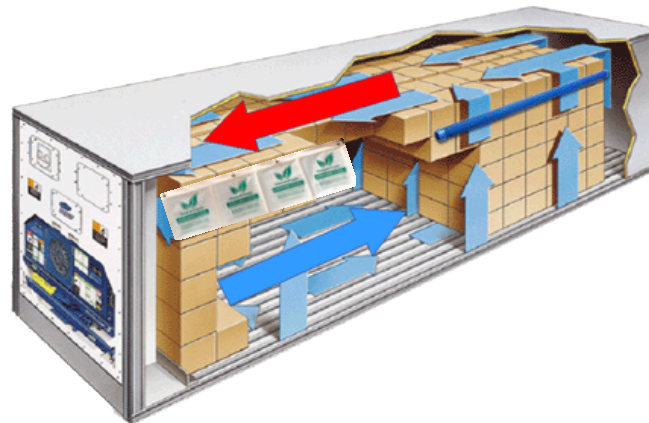


Product

KIF Filters & Curtains



Curtains and filters are used for single or multiple trips in reefer containers. Usually 2-3 curtains are used for a trip of 7-14 days haulage period.



TECHNOLOGY

Ethylene Absorption
VBI

Application

- Warehouses
- Reefer Containers
- Trucks & Vans
- Cold chambers
- Retail shelves

SUITABLE FOR

Suitable for fruits and
veggies cold stores



Ethylene Filters



Filters for reefers & cold stores



Filters for retail

Product

KIF Paper



Paper sheets and small chips are used in bulk boxes or retail boxes to extend shelf life. The paper should cover at least 50% of the top surface.



TECHNOLOGY

Ethylene Absorption
VBI



Application

- Export of fruit veggie boxes
- Domestic shipping of fruits and veggies
- Retail shelf placement
- Punnets and retail packs

SUITABLE FOR

Suitable for fruits and veggies in retail & export



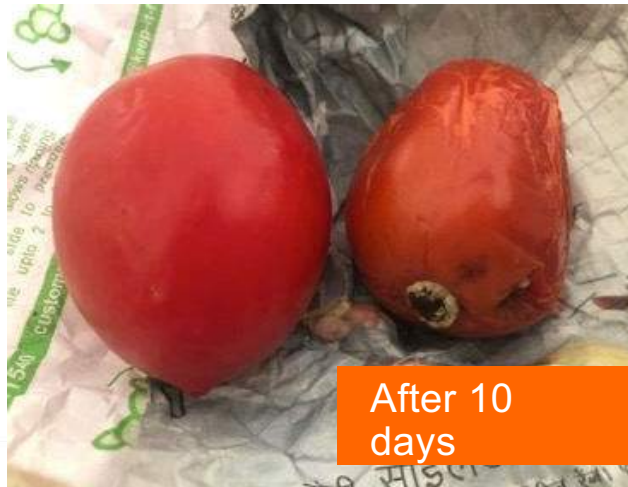
Testing



Before



Before



After 10
days



After 10
days



Kif for breads

12 day trial



DAY 12



12 day trial of breads

No fungus

No cracking

Maintains freshness

Maintains fresh odour



Product

KIF Oxygen Absorbers



Oxygen absorbers are added to enclosed packaging to reduce the level of oxygen in the packaging. They are used to maintain product safety and extend shelf life.



TECHNOLOGY

Oxygen Absorption
CO2 Modulation

Application

- Meats
- Pharma
- Bakery and breads
- Nuts and dry fruits
- Cut fresh fruits

SUITABLE FOR

Meats, Pharma and
Bakery



Product

KIF Flora Fresh



Flora Power is a clear fresh flower food formulated to hydrate and nourish fresh cut bulb flowers that results in a longer life.



SUITABLE FOR

Suitable for flowers



Application

- Export of flowers
- Retail of flowers
- Hotels and Resorts
- Extension of life during shipment and storage at homes

Control - Only Water



With Keep It Fresh
Floral Fresh



Dump Ratio Analysis

Dump Ratio Reduction



Snapshot of results

An extensive trial was done lasting 14 days for supplies from vendor of Big Bazaar to their store in Ambience Mall, Vasant Kunj Delhi and below results were observed



Before Trial

Dump Ratio

23%

Standard packaging used accounting for heavy losses in dump for 22 articles that were chosen by Big Bazaar (7 weeks Data)

During Trial

Dump Ratio

7.5%

Solutions implemented that resulted in high amount of direct and indirect savings (2 weeks Data)



Filter Tubes + KIF Paper



Avocado

Reduced dump rate
from 17% to 2 %.

Maintained hardness,
colour and pressure



Kiwi

Reduced dump rate
from 28% to 4%.

Maintained Hardness,
Colour, Fungus



Pears

Reduced dump rate
from 14% to 3%.

Maintained Hardness
Colour and Weight
loss



Custard Apple

Reduced dump rate
from 28% - 5%.

Maintained Hardness ,
Colour and Reduced
black marks



Apple

Reduced dump rate
from 11 % to 6%.

Maintained Hardness
and Colour



Peach

Reduced dump rate
from 31% to 5%.

Maintained Hardness
Colour and Weight
loss

Anti Fungal Pads



Red Grapes

Reduced dump rate
from 17% to 2 %.

Maintained hardness,
colour and pressure



Green Grapes

Reduced dump rate
from 28% to 4%.

Maintained Hardness,
Colour, Fungus



Dragon Fruit

Reduced dump rate
from 14% to 3%.

Maintained Hardness
Colour and Weight
loss



Mushroom Button

Reduced dump rate
from 28% - 5%.

Maintained Hardness ,
Colour and Reduced
black marks



Keep It Fresh

Trial performed on Table Grapes at Nashik India to
compare the performance Keep It Fresh Grape
Pads

Comparative Results



GRAPES STORED IN COMPETITOR'S PADS



GRAPES STORED IN KEEP IT FRESH PADS

Observations

Competitor's grape pads performance observation:

- Color changed from green to yellow
- Stem browning
- Fungal growth observed
- Water release in punnets
- Odor change
- Change in taste
- Reduced firmness



Keep it fresh grape pads performance observation:

- Greener grapes
- No stem browning
- No fungal growth
- No moisture release
- No foul smell
- No taste change
- Firm



Certifications

Certificates




MAN


Report No. : 49362558-125.05-576 /1384
 Requested by : BİRÇEV ÇEVRE TEKNOLOJİLERİ SAN. TİC. LTD ŞTİ.
 Address : STRAZBURG CAD NO: 23/9 SİHİYE / ÇANKAYA ANKARA

Sample : STRAWBERRY-FRESHOT-G. DAY
 Expiry Date :
 Part / Lot No :
 Number of Samples : 1
 Sample handling : By Hand
 Condition of samples at reception :
 Information on retention samples :
 () Sample return to the customer () Retention sample available (x) Retention sample is not taken

Analysis	Result	Method
Net Weight	107.091 g	
Color	L: 45.98 a: 40.21 b: 21.93	Digeye Image Analyser
Moisture	89.08 g/100g	AOAC 930.04
Shelf Life Study	Test Conditions: 4 °C, 93% relative humidity	Sanyo MLR-350 HT Environmental Test Chamber



Origin: Antalya Serik
 Harvest date: 27.01.2019

Notes:
 Authorized Signatures:


This report and results can not be used for commercial and advertisement purposes by the demanding enterprise or its customers. Complete or part of this report cannot be copied or published. The marked "TM" symbols are reserved.
 Analysis reports without authorized signature are not legitimate.

This report is prepared as 2 originals (1 for the customer, 1 for the institute archives) and contains 5 pages Page 2 / 5

P.O. Box 21, 41475 GİRSE - KOCAELİ / TURKEY
 T: +90 262 677 35 00 F: +90 262 641 31 00

CONFIDENTIAL

ARC • LNR
Excellence in Research and Development

1. OBJECTIVE
 To assess the effect of different packaging on extending the shelf-life of red tomatoes during commercial trading conditions.

2. MATERIALS AND METHODS

2.1 Treatments

- Cultivar
 - Dutch tomatoes
- Treatments
 - Standard plastic bag (1 kg)
 - Xtend bag (1kg)
 - KIF 1 – 16 punch holes (1kg)
 - KIF 2 - hot needle and punch bag (1kg)
- Storage period for red tomatoes.
 - 7 days at 5°C + 6 days at 15°C

2.2 Quality assessment
 Fruit quality evaluations were done on arrival at the ARC, after cold storage and after the shelf-life period. External defects/disorders were assessed for each bag. A representative sample of 6-7 tomatoes was selected from each replicate to measure physico-chemical parameters and assess for internal defects or disorders. Total soluble solids (TSS, expressed as °Brix) was determined with a calibrated refractometer (Pocket refractometer PAL-1, ATAGO Co. LTD, Japan). To measure titratable acidity (TA), 54mL juice sample was titrated against

SGS

TEST REPORT

Report No. : MAN-HL:7480003070 DATE : 18th February, 2016

HI TECH INTERNATIONAL
 PLOT NO-B 31, BEANT COLONY JAMALPUR
 LUDHIANA-141019
 INDIA
 CONTACT PERSON : MR. SIDHARTH SAREEN

THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED AND IDENTIFIED BY/ON BEHALF OF THE CUSTOMER AS :

SAMPLE DESCRIPTION	KEEP-IT-FRESH BAG
COLOUR	GREEN
BUYER	HI TECH INTERNATIONAL
COUNTRY OF ORIGIN	INDIA
SAMPLE RECD ON	08/02/2016
TEST PERFORMING DATE	09/02/2016 TO 18/02/2016
TEST REQUESTED	PLS. REFER TO SUMMARY
TEST METHOD & RESULT(S)	PLEASE REFER TO NEXT PAGE(S)

SUMMARY OF TEST RESULTS:

TEST REQUESTED	CONCLUSION
US FDA 21 CFR 177.1520 (Olefin Polymers)	
1. a) Maximum extractable fraction	Pass
1. b) Maximum soluble fraction	Pass

Per Pro SGS India Pvt Ltd.



Aashish
 Sr. Executive
 Email your Test Report Related Enquiries at Feedback.HLT@sgs.com

SGS

TEST REPORT

Report No. : MAN-HL:1048000742 DATE : 06th February, 2019

KEEP IT FRESH LLP
 B-31 OPP POWER HOUSE JAMALPUR, CHANDIGARH ROAD
 LUDHIANA-141120
 INDIA
 CONTACT PERSON : MR. SIDHARTH SAREEN


THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED AND IDENTIFIED BY/ON BEHALF OF THE CUSTOMER AS :

SAMPLE DESCRIPTION	KEEP-IT-FRESH SACHET (PP PART)
COLOUR	WHITE & GREEN
BUYER	KEEP IT FRESH LLP
COUNTRY OF ORIGIN	USA
COUNTRY OF ORIGIN	INDIA
SAMPLE RECD ON	29/01/2019
TEST PERFORMING DATE	30/01/2019 TO 04/02/2019

SUMMARY OF TEST RESULTS:

TEST REQUESTED	CONCLUSION
US FDA 21 CFR 177.1520 (Olefin Polymers)	
1. a) Maximum extractable fraction	Pass
1. b) Maximum soluble fraction	Pass

TEST(S) RESULT & METHOD: PLEASE REFER TO NEXT PAGE(S)

Per Pro SGS India Pvt. Ltd.

 SANDIP BHUSHAN (Asst. Manager)
 Email your Test Report Related Enquiries at Feedback.HLT@sgs.com



Turkey



South Africa



USA



USA

Certifications



Financial Overview

KIF Bio Bags



KIF Boxes



KIF for Cut Fruits



Grape Bags



 Keep It
Fresh

KIF Hexa Paper



 COMPOSTABLE

KIF Foam





UP TO
5X
LIFE
EXTENSION



Thank You

Shelf Life
Extension
Solutions

Reducing Wastage
Improving Profits