



केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार
MINISTRY OF ENVIRONMENT FOREST & CLIMATE CHANGE GOVT OF INDIA

Certificate No.: **CPCB-UPC-II/track mark international/Delhi/118**

Dated: 23.02.2024

To,

M/s track mark international
PLOT NUMBER 343, KHASRA NUMBER 143,
INDUSTRIAL AREA KHANJHAWLA ,
BHAWANA ROAD DELHI 110081

Sub: Certificate to manufacturer for Manufacturing / Selling of Compostable Plastics
Carry bag and Commodities.

With reference to the application no. **track mark international/Delhi/118** dated **23 Feb 2024** this is to certify that **M/s track mark international** plant located at **PLOT NUMBER 343, KHASRA NUMBER 143 INDUSTRIAL AREA KHANJHAWLA , BHAWANA ROAD DELHI 110081** is fulfilling the criteria as per revised Standard Operating Procedure (SOP) for issuing certificate as per the provisions '4(h)' & '11(c)' of Plastic Waste Management Rules, 2018, for manufacturing and selling of compostable carry bags and Commodities in Indian Market as '**MANUFACTURER**'.

Certificate for manufacturing and selling of compostable plastic bags and commodities in Indian market is hereby issued to **M/s track mark international** plant located at **PLOT NUMBER 343, KHASRA NUMBER 143 INDUSTRIAL AREA KHANJHAWLA , BHAWANA ROAD DELHI 110081** as '**MANUFACTURER**' with the following conditions:

- The end product "**Compostable plastics and Commodities**" shall be manufactured using the raw materials "**Compostable starch granules, PLA, PBAT**" and following the production process (**Annexure I**).
- Each carrybag and commodities made from compostable material or plastic shall bear a label "**COMPOSTABLE**" **IS/ISO:17088** titled as Specifications for "Compostable Plastic" in **English & regional language**. Each carrybag and commodities shall also have printed code and Certificate Number of "**MANUFACTURER**"
- The manufacturer shall generate QR code based on the details (Name, plant address, CPCB certificate no. etc.) provided in the certificate issued by CPCB and QR code shall be provided on each of the carry bag and commodities manufactured at the certified unit. The "verifiable" details of the QR code shall be shared with the SPCB/PCC/CPCB within one month of issue of this Certificate.

दिव्या सिन्हा
दिव्या सिन्हा / Divya Sinha
वैज्ञानिक 'एफ' / Scientist 'F'

Contd....2

'परिवेश भवन' पर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, Delhi-110032

दूरभाष/Tel : 43102030, 22305792, वेबसाइट/Website : www.cpcb.nic.in

- iv. This certificate issued by CPCB shall not require renewal. However, a fresh application shall be filed with CPCB for grant of certificate, in case there is any change in raw material/ production process or product.
- v. The Manufacturer shall provide six-monthly report giving details of raw material procurement and product sale to SPCB/PCC/CPCB as per the prescribed format.
- vi. The "Manufacturer" shall comply with provisions of PWM Rules / Guidelines issued from time to time by the Ministry of Environment, Forest & Climate Change or Central Pollution Control Board.
- vii. If the certified Manufacturer is found non-complying with the provisions of the PWM Rules, 2018, the Certificate shall stand cancelled

Dy.

(Divya Sinha)

Director & I/c UPC-II

दिव्या सिन्हा / Divya Sinha
वैज्ञानिक 'एफ' / Scientist 'F'
केंद्रीय प्रदूषण नियंत्रण बोर्ड
Central Pollution Control Board
(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार)
(Ministry of Environment, Forest & Climate Change, Govt. of India)
परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली-110032
Privesh Bhawan, East Arjun Nagar, Delhi-110032

The Production Process

A. Extrusion Process:

Typically, blown film extrusion is carried out vertically upwards, however horizontal and downward extrusion processes are now becoming more common. This procedure consists of four main steps:

1. The polymer material starts in a pellet form, which are successively compacted and melted to form a continuous, viscous liquid. This molten plastic is then forced, or extruded, through an annular die.
2. Air is injected through a hole in the center of the die, and the pressure causes the extruded melt to expand into a bubble. The air entering the bubble replaces air leaving it, so that even and constant pressure is maintained to ensure uniform thickness of the film.
3. The bubble is pulled continually upwards from the die and a cooling ring blows air onto the film. The film can also be cooled from the inside using internal bubble cooling. This reduces the temperature inside the bubble, while maintaining the bubble diameter.
4. After solidification at the frost line, the film moves into a set of nip rollers which collapse the bubble and flatten it into two flat film layers. The puller rolls pull the film onto windup rollers. The film passes through idler rolls during this process to ensure that there is uniform tension in the film. Between the nip rollers and the windup rollers, the film may pass through a treatment centre, depending on the application. During this stage, the film may be slit to form one or two films, or surface treated.

B. Printing:

A flexographic print is made by creating a positive mirrored master of the required image as a 3D relief in a rubber or polymer material. Flexographic plates can be created with analog and digital platemaking processes. The image areas are raised above the non image areas on the rubber or polymer plate. The ink is transferred from the ink roll which is partially immersed in the ink tank. Then it transfers to the anilox or ceramic roll (or meter roll) whose texture holds a specific amount of ink since it is covered with thousands of small wells or cups that enable it to meter ink to the printing plate in a uniform thickness evenly and quickly (the number of cells per linear inch can vary according to the type of print job and the quality required). To avoid getting a final product with a smudgy or lumpy look, it must be ensured that the amount of ink on the printing plate is not excessive. This is achieved by using a scraper, called a doctor blade. The doctor blade removes excess ink from the anilox roller before inking the printing plate. The substrate is finally sandwiched between the plate and the impression cylinder to transfer the image. The sheet is then fed through a dryer, which allows the inks to dry before the surface is touched again. If a UV-curing ink is used, the sheet does not have to be dried, but the ink is cured by UV rays instead.

C. Cutting & Sealing:

This is final step in the process of bag making. The film rolls are loaded to the machine and the desired size is set and the machine cuts the film in to the size and seals it one side to make it a bag.

D. Chiller Application:

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Central Pollution Control Board
(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार)
No Environment, Forest & Climate Change, Govt. of India
परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली-110032
Anurag Bhawan, East Arjun Nagar, Delhi-110032

Chilling systems are used variety of industrial processes and production machinery applications, ranging from self-contained portable units through to completely installed "turn-key systems".

A chiller can be used to cool any machine or process that operates at 60° F or over. A cooling tower can be used to cool any machine or process that operates at 85° F or higher. Some of the more common applications are listed below:

Plastics:

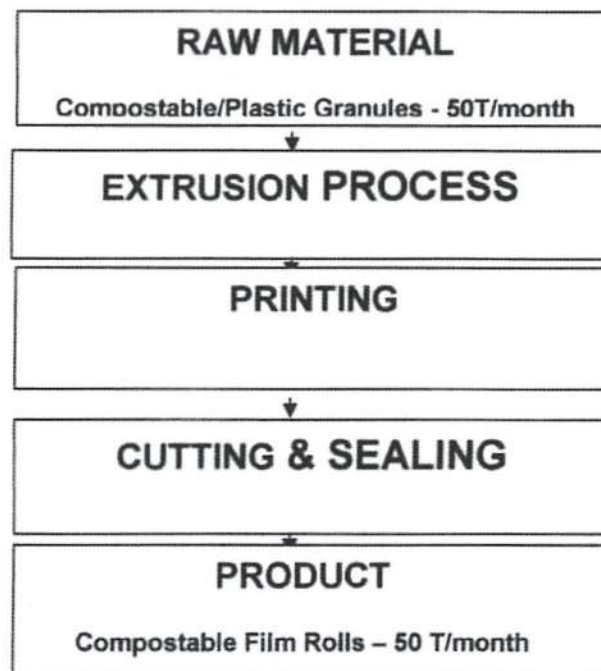
In the plastics industry, a chilling system cools the hot plastic that is injected, blown, extruded or stamped. A chilling system can also cool down the equipment that is used to create plastic products (hydraulics of the molding machine, gear box and barrel of the extruder that saves on energy and on the wear and tear of the machine itself.

E. Mixer:

The purpose of the mixer is to blend two different grades of raw-material continuously so that there is uniformity in production. They are helpful in high capacity production process and also eases the work of the labour.

F. Air Compressor:

An air compressor is a device that converts power (using an electric motor, diesel or gasoline engine, etc.) into potential energy stored in pressurized air (i.e., compressed air). By one of several methods, an air compressor forces more and more air into a storage tank, increasing the pressure. When tank pressure reaches its upper limit the air compressor shuts off. The compressed air, then, is held in the tank until called into use. The energy contained in the compressed air can be used for a variety of applications, utilizing the kinetic energy of the air as it is released and the tank depressurizes. When tank pressure reaches its lower limit, the air compressor turns on again and re-pressurizes the tank. The uses of the air compressor in the extrusion process has been explained in the Extrusion Process (2).



दिव्या सिन्हा / Divya Sinha
वैज्ञानिक 'F' / Scientist 'F'
केंद्रीय प्रदूषण नियंत्रण बोर्ड
Central Pollution Control Board
(पर्यावरण, वन एवं जल विभाग, भारत सरकार)
(Ministry of Environment, Forest & Climate Change, Govt. of India)
परिवेश भवन, प्लॉट अर्जुन नगर, दिल्ली-110032
Private: 011-26111000, 26111002

For TRACK MARK INTERNATIONAL



Proprietor

Page 2 of 2



Certificate No.- B-17011/7/PWM(COMP)/2020(TMI(M))

Dated: 05.10.2020

To,

M/s Track mark International
Plot No. 343, Khasara No. 143
Kanjhawala Industrial Area,
Bhawana Road , Permitted Industrial Units,
Delhi-110081

Sub: Provisional Certificate to manufacturer for Manufacturing / Selling of Compostable Carry Bags

With reference to the application no., Nil, dated 10.10.2019 this is to certify that **M/s Track mark International**, plant located at **Plot No. 343, Khasara No. 143 Kanjhawala Industrial Area, Bhawana Road , Permitted Industrial Units, Delhi-110081** is fulfilling the criteria as per revised Standard Operating Procedure (SOP) for issuing certificate as per the provisions '4(h)' & '11(c)' of Plastic Waste Management Rules, 2018, for manufacturing and selling of compostable carry bags in Indian Market as '**MANUFACTURER**'.

Certificate for manufacturing and selling of compostable plastic bags in Indian market is hereby issued to **M/s Track mark International**, plant located at **Plot No. 343, Khasara No. 143 Kanjhawala Industrial Area, Bhawana Road , Permitted Industrial Units, Delhi-110081** as '**MANUFACTURER**' with the following conditions:

- The end product "**Compostable bags**" shall be manufactured using the raw materials Compostable raw material **Bio based PLA, PBAT** and following the production process. (**Annexure-I**)
- Each carrybag made from compostable material or plastic shall bear a label "**COMPOSTABLE**" **IS/ISO:17088** titled as Specifications for "Compostable Plastic" in **English & regional language**. Each carrybag shall also have printed code and Certificate Number of "**MANUFACTURER**" as given above.
- The manufacturer shall generate bar code based on the details provided in the certificate issued by CPCB and bar-code sticker shall be provided on each of the carry bag manufactured at the certified unit. The details of the bar code (email/password etc.) shall be shared with the SPCB/PCC/CPCB within 30 days of issue of this Certificate.

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- iv. The Manufacturer shall provide six-monthly report giving details of raw material procurement and product sale to SPCB/PCC/CPCB as per the prescribed format.
- v. The "Manufacturer" shall comply with provisions of PWM Rules/ Guidelines issued from time to time by the Ministry of Environment, Forest & Climate Change or Central Pollution Control Board.
- vi. The manufacturer shall manufacture/sell the compostable carrybags only after they obtain a valid Registration for manufacturing of Compostable carrybags from concerned SPCB/PCC. The Registration should be submitted to CPCB within 03 months of issue of the Certificate by CPCB, failing which the Certificate shall be revoked.
- vii. If the certified Manufacturer is found non-complying with the provisions of the PWM Rules, 2018, the Certificate shall stand cancelled
- viii. The manufacturer shall submit the complete test report of the sample, including seed germination and heavy metal analysis test (after 180 days) as per Indian Standard IS/ISO:17088 (as amended time to time) from CIPET or any other CPCB recognized Government laboratory having adequate testing facility for issuing Final Certificate, failing which, the Provisional Certificate shall stand cancelled.
- ix. The provisional certificate is valid for a period of six months from the date of issue of certificate by CPCB extendable by six months subject to the condition that the reasons for seeking extension as cited by the manufacturer are found valid by CPCB.

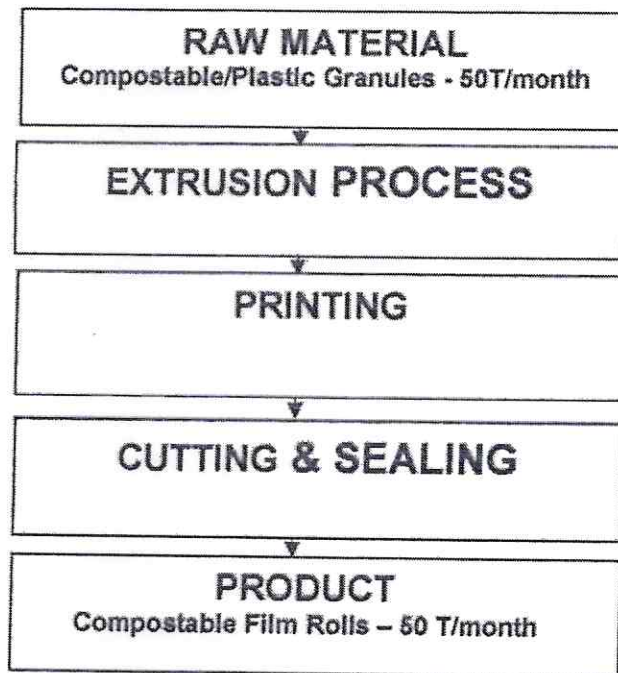
(Name & designation)

दिव्या सिन्हा / Divya Sinha
निर्देशक / Director
केन्द्रीय प्रदूषण नियंत्रण बोर्ड
Central Pollution Control Board
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
Ministry of Environment, Forest & Climate Change, Govt. of India
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Parivesh Bhawan, East Arjun Nagar
दिल्ली/Delhi-110032

RAW MATERIAL BALANCE

- 1.Raw Material used PBAT PLA Fine Starch CaCO3 and Bio Additives - 50T/Month
- 2.Used above raw material – 50T/Month
3. Cutting Waste and End Bits – 7T/Month
- 4.Scrap Material Sold to Scrap – 7T/Month

There is no Raw Material Balance in the unit



For TRACK MARK INTERNATIONAL

[Signature]
Proprietor

दिव्या सिन्हा/Divya sinha
विज्ञानिक "ई"/Scientist "E"
केन्द्रीय प्रदूषण नियंत्रण बोर्ड
Central Pollution Control Board
एन एच १०१, पूर्व अर्जुन नगर, भारत सरकार
Ministry of Environment, Forest & Climate Change, Govt. of India
परिवेश भवन, पूर्व अर्जुन नगर
Parvash Bhawan, East Arjun Nagar
दिल्ली/Delhi-110032

सिपेट: इंस्टिट्यूट ऑफ प्लास्टिक्स टेक्नॉलाजी (आई पी टी) कोच्चि

रसायन एवं पेट्रोसायन विभाग
सायन एवं उर्वरक मंत्रालय, भारत सरकार
एच.ए.एल. कॉलोनी, एडयार रोड, पातालम्
उद्योगमंडल पी.ओ.
कोच्चि, केरल - 683 501
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ई-मेल: kochi@cipet.gov.in, cipetkochi@gmail.com
वेबसाइट : www.cipet.gov.in
मुख्यालय : गिण्डी, चेन्नै : 600 032



CIPET सिपेट

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एक कदम स्वच्छता की ओर

CIPET: INSTITUTE OF PLASTICS TECHNOLOGY (IPT) KOCHI

Department of Chemicals & Petrochemicals
Ministry of Chemicals & Fertilizers, Govt. of India
HIL Colony, Edayar Road, Pathalam
Udyogamandal P.O., Kochi, Kerala-683 501
Ph: 0484-2546740
E-mail: kochi@cipet.gov.in, cipetkochi@gmail.com
Web : www.cipet.gov.in
Head Office : CIPET, Guindy, Chennai-600 032

सिपेट:आई पी टी-कोच्चि /परीक्षण/२०२०-२१

दिनांक : २१.०९.२०२०

CIPET:IPT-Kochi /Testing/2020-21/

Date: 21.09.2020

सेवा में / To

M/s.Track Mark International,
Plot No.343, Kasara No.143,
Kanjhawala Industrial Area,
Bhawana road, Delhi -110081

प्रिय महोदय / Dear Sir,

Sub.: Interim Test Report – Reg.
Ref. : Your letter dt.27.04.2020

हम इसके साथ परीक्षण के लिए प्रस्तुत नमूने से संबंधित अन्तरिम टेस्ट रिपोर्ट क्रमांक 20228
दिनांकित 21.09.2020 संलग्न कर रहे हैं।

We are enclosing herewith Interim Test Report No.20228 dt.21.09.2020 pertaining to the
samples submitted for testing.

धन्यवाद तथा सबसे अच्छी सेवा देने का आश्वासन के साथ,
Thanking you and assuring you our best services,

सादर, / Yours sincerely,

प्रधान निदेशक और प्रमुख
Principal Director & Head

संलग्न यथोक्त / Encl. as above.

सिपेट: इंस्टिट्यूट ऑफ प्लास्टिक्स टेक्नॉलाजी (आई पी टी) कोच्चि

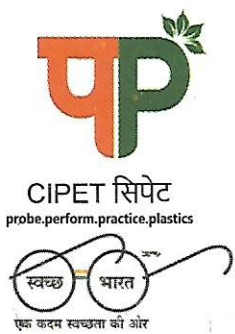
रसायन एवं पेट्रोसायन विभाग
सायन एवं उर्वरक मंत्रालय, भारत सरकार
एच.ए.एल. कॉलोनी, एडयार रोड, पातालम्
उद्योगमंडल पी.ओ.
कोच्चि, केरल - 683 501

फोन : 0484-2546740

ई-मेल: kochi@cipet.gov.in, cipetkochi@gmail.com

वेबसाइट : www.cipet.gov.in

मुख्यालय : गिण्डी, चेन्नै : 600 032



CIPET: INSTITUTE OF PLASTICS TECHNOLOGY (IPT) KOCHI

Department of Chemicals & Petrochemicals
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Web : www.cipet.gov.in

Head Office : CIPET, Guindy, Chennai-600 032

INTERIM REPORT

CIPET/Kochi-IR/Trackmark /TR. No.20228

Date: 21.09.2020

Name & Address of the Party : M/s. Track Mark International,
Plot No.343, Kasara No.143,
Kanjhawala Industrial Area,
Bhawana road, Delhi -110081

Sample details : Compostable film (as declared by the party)

Date of receipt of sample : 27.04.2020

Date(s) of performance of test : 29.05.2020 to 17.09.2020

Sl. No.	Property	Test method / Standard	Unit	Results obtained	Specified Requirements
1.	Material Identification	FTIR / DSC	--	Blend of Polylactic acid (PLA) and Poly Butylene Adipate Co-Terephthalate (PBAT)	--
2.	Disintegration (Dry mass remains in 2mm sieve after 84 days)	Cl. 6.2 of ISO 17088-2012 / IS 17088-2008	%	6.05	Not more than 10%
3.	Ultimate Aerobic Biodegradation (with reference to 100% degradation of positive reference)	Cl. 6.3 of ISO 17088-2012 / IS 17088-2008	%	90.62 (At the end of 111 days)	> 90% (At the end of the test period not more than 180 days)

Comments: The submitted sample of Compostable film (as stated by the party) complies to the requirements of Cl. 6.2 & 6.3 of ISO 17088-2012 / IS 17088-2008.

Note:

- The submitted sample is exposed under controlled compost condition as per ISO 14855-1 and at the end of 111 days, the cumulative biodegradation is estimated as 90.62% with reference to the degradation of the cellulose (positive reference) .
- The following tests are under progress as per the standard ISO 17088-2012 / IS 17088-2008
 - Heavy metal analysis as per Cl. no. 6.4.1.
 - Seed germination as per Cl. no. 6.4.4.
- The Test Report will be issued after the completion of all the tests.
- The interim report is only valid till the issue of Test Report.


Manager(Technical)
Authorized Signatory


Principal Director & Head
Authorized Signatory

केन्द्र : अहमदाबाद, अमृतसर, औरंगाबाद, अगरतला, बद्दी, बालासोर, बेंगलूर, भोपाल, भुवनेश्वर, चंद्रपुर, चेन्नै, देहरादून, गुवाहटी, ग्वालियर, हैदराबाद, हाजीपूर, हल्दिया, इम्फाल, जयपुर, कोच्चि, लखनऊ, मदुरै, मुरथल, मैसूरु, रायपूर, राँची, वलसाड एवं विजयवाडा

Centres : Ahmedabad, Amritsar, Aurangabad, Agarthala, Baddi, Balasore, Bengaluru, Bhopal, Bhubaneswar, Chandrapur, Chennai, Dehradun, Guwahati, Gwalior, Hyderabad, Hajipur, Haldia, Imphal, Jaipur, Kochi, Lucknow, Madurai, Mysuru, Raipur, Ranchi, Valsad & Vijayawada