



Certificate No. B-17011/7/PWM(COMP)/2021/TPPT

Dated: 28.06.2021

To,

M/s Tirupati Packtech
VPO Kakkarmajra, NH-7 near bus stand,
Sub tehsil shahzadpur, Dist- Ambala- 134202 Haryana

Sub: Certificate to manufacturer for Manufacturing / Selling of Compostable Plastics

With reference to the application no. nil dated 30.01.2021 this is to certify that M/s. **Tirupati Packtech** plant located at **VPO Kakkarmajra, NH-7 near bus stand, Dist- Ambala- 134202 Haryana** 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 **Tirupati Packtech**, plant located at **VPO Kakkarmajra, NH-7 near bus stand, Dist- Ambala- 134202 Haryana** as '**MANUFACTURER**' with the following conditions:

- i. The end product "**Compostable plastic**" shall be manufactured using the raw materials "**PLA and PBAT**" and following the production process (**Annexure I**)
- ii. 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.
- iii. 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 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.

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‘परिवेश भवन’ पूर्वी अर्जुन नगर, दिल्ली-110032
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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

दिव्या सिन्हा / Divya Sinha

वैज्ञानिक / Scientist 'E'

केन्द्रीय प्रदूषण नियंत्रण बोर्ड

Central Pollution Control Board

पर्यावरण, वन और जल संधारण विभाग, भारत सरकार
Ministry of Environment, Forest & Climate Change, Govt. of India

परिधि: मयन, पूरु अर्द्धन नगर, दिल्ली-110 032

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Divya

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 ink 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 to the size and seals it one side to make a bag.

D Chiller Application

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केन्द्रीय प्रदूषण नियंत्रण बोर्ड

Central Pollution Control Board

पर्यावरण और जलवायु परिवर्तन मंत्रालय, भारत सरकार

Ministry of Environment, Climate Change, Govt. of India

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

Plastics

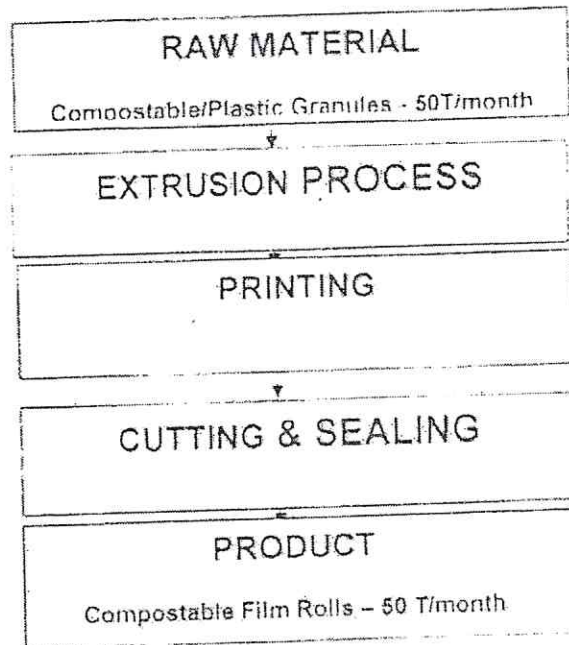
In the plastics industry, a chilling system cools the hot plastic that is injected, blown, extruded or stamped. A chilling system can also cool down the equipment that is used to create plastic products (hydraulics of the molding machine, gear box and barrel of the extruder) that saves on energy and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



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