

Quick Verification Test to distinguish Compostable Plastics from Conventional Plastics

S No	Experiment	Observation	Inference
1	Take Dichloromethane (DCM) in test tube. Dissolve 2x2 cm film sample or few granules in Dichloromethane (DCM)	Dissolution of samples*	Confirm the presence of PLA and PBAT. PE and PP will not undergo dissolution.
2	Dissolve 2x2 cm film sample or few granules in boiled xylene	Dissolution of samples.	Confirm the presence of PE and PP. PLA and PBAT will not undergo dissolution.
3	Immerse few granules of sample in distilled water at ambient temperature	Float/Sink	Samples made from PLA and PBAT will sink and samples made from PE and PP will float on water.

***Note:**

- Styrene based polymers undergo dissolution in DCM and may appear as compostable plastics. Dense black smoke with soot in air will be observed on burning of Styrene based samples. In addition to that, identification by FTIR & DSC shall be carried out for confirmation of Styrene based polymers.
- The film sample containing starch and other additives may not undergo complete dissolution in DCM.