

Homework 2

Plastics in a Circular Economy

This week we went through types of plastics that impact the circular economy. For the following plastics:

- i) indicate two (if possible) synthetic schemes by indicating the type of polymerization and drawing out the reaction
- ii) two methods to process the polymer by showing a sketch of the process and a short description
- iii) some common additives for this plastic, and
- iv) some common uses for this plastic (show an image if you can).
- v) is the plastic recyclable? is it recycled?

- a) Polystyrene (PS), HIPS, PS Foam.
- b) Polyethylene Terephthalate (PET, PETE).
- c) High Density Polyethylene.
- d) Styrene Butadiene Rubber (SBR).
- e) Polyhydroxybutyrate (PHB), Polyhydroxyalkanoates (PHA)