

Lab 5: Polymer Processing

Section U

Group 1

List of Materials:

- polyethylene (PE)
- polyethylene terephthalate (PET)

List of Equipment:

- PET tube
- Salt Bath at 100C
- Air compressor
- Blow Gun
- Feed hopper
- Heating chamber
- Injection Mold

Detailed Procedure:

Blow Molding

- A tube is heated to reach semi-molten state
- It is then placed in a mold having desired configuration
- Pressurized air is used to blow the tube against the mold walls where it cools
- The mold cools and is removed

Injection Molding

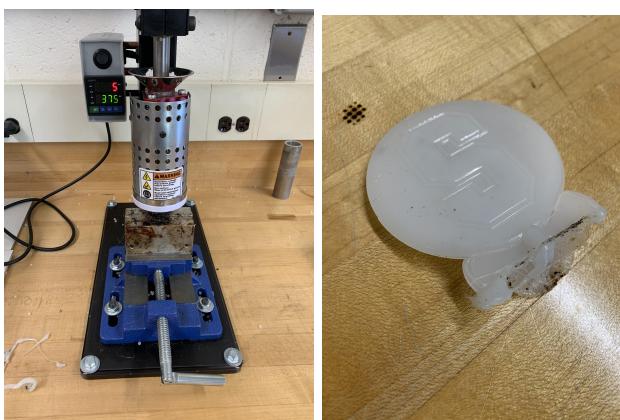
- Plastic mold is heated in furnace
- After surpassing T_g it reaches a dough-like consistency
- Polymer is injected under pressure into a mold
- Cooling

Results and Observation:

Blow Molding



Injection Molding



Signature:

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