

Polymer Processing

Additional Material

Extrusion

Extrusion process: <https://www.youtube.com/watch?v=Tp2Rdx69SSo>

Inside an extruder: <https://www.youtube.com/watch?v=5zNhneCMbOI>

Plastic Film extrusion: https://www.youtube.com/watch?v=ZNVCg-e_HBY

Sheet Extrusion: <https://www.youtube.com/watch?v=oxZ1nfiHUql&t=55s>

Injection Moulding:

Injection Moulding: <https://www.youtube.com/watch?v=RMjtmsr3CqA>

Injection gate marks: <https://www.youtube.com/watch?v=yQBu1Sqx9rM>

Lego video: <https://www.youtube.com/watch?v=y1Zhpdx-XtA>

Lego Factory: <https://www.youtube.com/watch?v=C3oiy9eekzk>

Blow Moulding:

How plastic bottles are made: <https://www.youtube.com/watch?v=lWMZ1Pmh7uM>

Reading Plastics 101: <https://thisisplastics.com/topics/plastics-101/>

How the plastic bottle went from miracle container to hated garbage:
<https://www.nationalgeographic.com/environment/article/plastic-bottles>

Thermoforming:

Thermoforming Process: <https://www.youtube.com/watch?v=p5M0YI2BUjE>

Thermoforming sustainable packaging: <https://packagingeurope.com/thermoforming-with-biobased-plastics-for-greater-sustainability/>

Additive manufacturing:

Applications: <https://www.3dsystems.com/>

<https://formlabs.com/eu/industries/>

<https://www.eos.info/en/3d-printing-examples-applications>

Incremental Forming:

Application in Architecture: <https://royaldanishacademy.com/case/bridge-too-far>

Other relevant processes

Rotational Moulding: <https://www.rotomade.com/en/rotomolding-process/>

Compression Moulding: <https://formlabs.com/blog/compression-molding/>

CNC Machining: <https://www.youtube.com/watch?v=-Qn-KCU4cWU&t=9s>

Polymer Casting:

https://www.youtube.com/watch?v=m0pv3kDKynQ&feature=emb_imp_woyt