Plastics and plastic processes are widely used in manufacturing and becoming even more so. With the current trends towards plastic, an engineer must be knowledgeable of the current plastics available, their associated properties and processes to match for the appropriate applications and needs.

This presentation distinguishes the different plastics and their key characteristics when considering plastic in a design.

Certain common component and design features are discussed to improve favorable performances and ease manufacturing. These key features include:

- Wall thickness
- Corners
- Webs/ribs
- Drafts/tapers
- Threads
- Undercut
- Inserts
- Hinge
- Assembly

The presentation also outlines the following common assembly methods with plastics:

- Joints
- Bosses
- Snap fits
- Adhesive Bonding
- Welding