

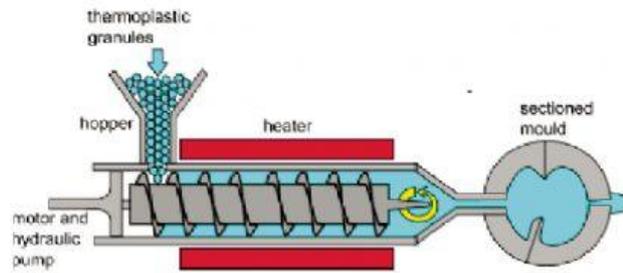


How are these made?



Injection Moulding

<http://www.youtube.com/watch?v=U4MPTKVbxXU>



Clues to Injection Moulding:

Shut lines
Sprue mark
Complex shape
Lots of detailed features

1. Plastic granules are fed into the hopper.
2. The screw in the chamber below the hopper sends the granules forward.
3. Heated jackets around the screw melt the polymer.
4. The screw winds back and the hydraulic ram comes forward into position.
5. The mould is closed and sealed as the ram forces the melted plastic into the mould.
6. The plastic is allowed to cool and the halves of the mould release.
7. The "sprue" is machined off.

Activity 1:

- Work in Group
- Set the steps in the correct sequence.
- label the shape and choose the correct properties of the objects made by injection moulding method in the blue box.
- Timing 15mins.

Injection Moulding

Set the steps in the correct sequence.

The screw in the chamber below the hopper sends the granules forward.

The "sprue" is machined off.

The mould is closed and sealed as the ram forces the melted plastic into the mould.

Plastic granules are fed into the hopper.

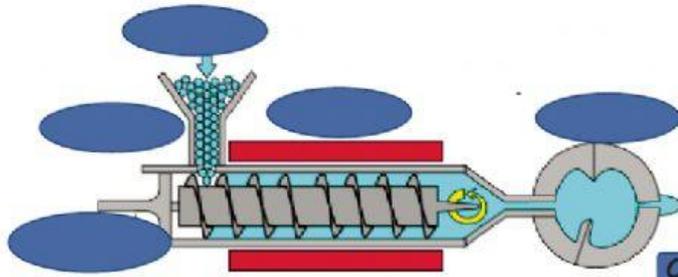
The screw winds back and the hydraulic ram comes forward into position.

The plastic is allowed to cool and the halves of the mould release.

Heated jackets around the screw melt the polymer.

Five horizontal blue bars for reordering the steps.

label the shape and choose the correct properties of the objects made by injection moulding method in the blue box.



Clues to Injection Moulding:

- Long regular shape
- Shut lines
- Can be tube/bar
- Sprue mark
- Shapes are linear
- Lots of detailed features
- Complex shape