

The Rotomolding Process

There are six steps in the rotomolding process:

Step 1

The mold or cavity is filled with a predetermined amount of polyethylene powder, such as LyondellBasell *Microthene* powders. This is called “charging the mold.”



Weighing the polyolefin powder

Step 2

The mold halves are secured together by a series of bolts or clamps. For totally enclosed pieces, the entire mold is made of heat conductive metal. When one or both ends of the piece are open, heat-insulating covers are used to close the mold.



Filling the mold

Step 3

The charged mold is placed in an oven where it is heated and simultaneously rotated around two axes in planes at right angles to each other.



Programming the movement of the arm

Step 4

During the heating/rotation cycle the resin melts, fuses and then takes on the shape of the mold being used to form the hollow object.

Step 5

When all the powder has fused into a homogenous layer on the walls of the mold cavity, a combination of air and water is used in a cooling chamber to cool the mold slowly. This helps maintain the part's dimensional stability.

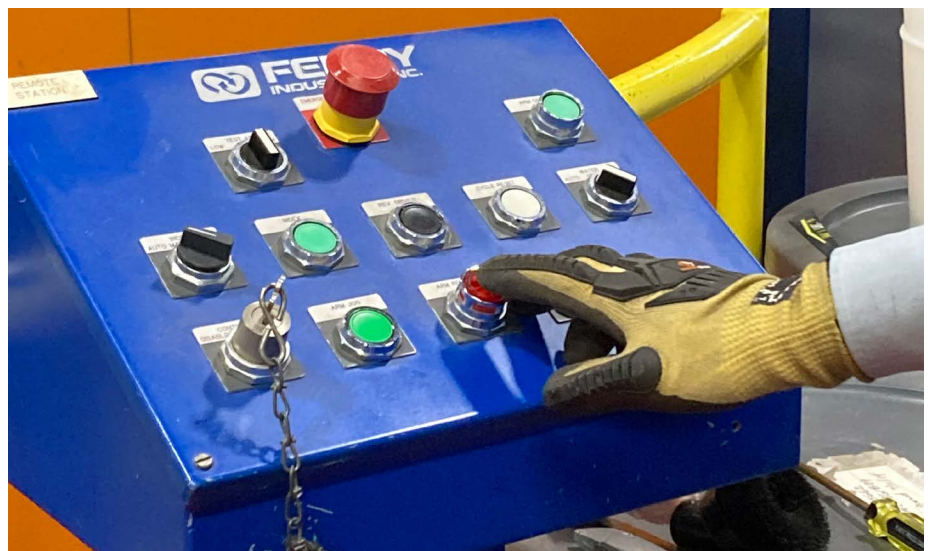
Step 6

The molds are removed from the cooling chamber, opened and the finished parts removed. The mold is then readied for the next cycle.

Before the molds are recharged and steps one through six repeated, it is important to be sure no moisture is on the inside of the mold.



Removing the finished item



The mold moves from the oven to the cooling chamber

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