



THE IMPORTANCE OF THICKNESS TESTING YOUR ROTOMOLDED PARTS

2/7/2022

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✓ **Thickness Testing** – Rotationally molded parts need to have the correct thickness when molded to meet certain quality and safety specifications. These specifications should be recorded on the part thickness chart. This completed chart can then serve as proof that parts were produced to the specified thickness, and it can also be used as a Quality Document.

✓ A thickness tester works by sending ultrasonic sound waves out of the transducer head through the molded part wall and measuring the amount of time it takes for the waves to bounce back into the head. This time is then translated into a measurement reading by the hardware and software inside the main body of the tester. The reading is displayed as a digital number value.

✓ It is very important that the part is at or near room temperature before performing thickness testing. A warm part will give an incorrect reading for thickness.

✓ A QA Department representative should be responsible for checking the thickness of the parts that are being produced on the molding machines.

✓ Parts should be tested on each shift to ensure that the thickness specifications are consistently within tolerance.

✓ It is important that the first part produced after a mold change gets tested in the event that an adjustment is needed. This helps to prevent any subsequent parts from being produced out of specification.

ROTOMOLDED PART WALL THICKNESS ISSUES

Definition of a wall thickness issue – When the wall thickness of part is out of tolerance based on the predetermined specification on the respective part's thickness chart.

Common causes – Incorrect resin weight, rotation speed issue, machine air flow issue, air vector out of adjustment, broken air line, burnt plastic build up on the outside of the mold, mold position on the arm / carriage, or cold mold.



IMPORTANT QUALITY CHECKS DURING A MOLD CHANGEOVER

Exterior - Inspect the mold for the following:

- ✓ Missing or Damaged Flex Hoses
- ✓ Missing or Damaged Air Tips
- ✓ Missing or Damaged Safety Pins on Removable Mold Parts
- ✓ Missing or Damaged Air Lines
- ✓ Missing or Damaged Clamps/Bolts