

## Component Group 1



1-1) What process was used to make this piece? How can you tell?

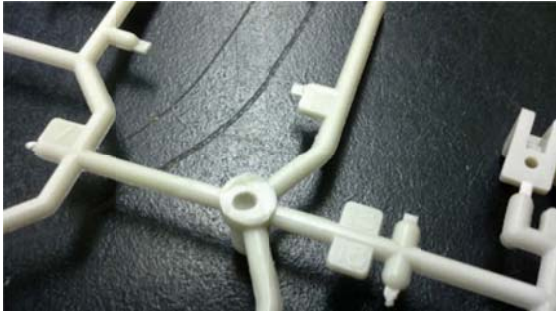
1-2) How was the mold for this part made? How can you tell?

1-3) What is the function of the feature found on each corner (shown below)?



1-4) What material do you think this is? Why?

## Component Group 2



2-1) One side of this part has numbers on it. Which side of the mold was this on ( A or B)?

2-2) Which method do you think was used to remove the sprue from this molding?

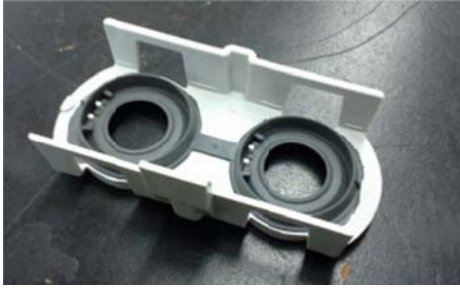
Hand snipped

Hot runner mold

Insulated runner mold

2-3) What manufacturing process made this part?

### Component Group 3



3-1) What process was used to mold these components together?

3-2) When was this part made?

3-3) What material is the larger, light grey component made from?

3-4) How can you tell?

3-5) What does the abbreviation TF20 stand for?

## Component Group 4



4-1) How were these component made? What evidence do you have?

## Component Group 5



5-1 ) Assuming the marbled pattern is not intentional, what might explain this effect?

5-2) What is the name of the feature that connects the two halves?

5-3) What might have caused the hole to form?

5-4) How many gate locations do you see on the part.

5-5) Was this molded in one or two pieces?

## Component Group 6



6-1) How was this part produced?

6-2) What is the name of the feature that connects the two parts?

6-3) What material is the part made from?

6-4) What is the purpose of the rectangular holes shown below?



6-5) Were slides required to produce the snap-fit connectors?

6-6) Why is the part ribbed instead of just being thicker?

## Component Group 7



7-1) Was this part made using a hot runner or insulated runner mold?

7-2) Were slides used to make the snap-fit connectors?

7-3) What is the profile of the runner system (round, trapezoidal, square)?

7-4) Be able to identify the A and B side of this component.

## Component Group 8



8-1) What type of blow molding was used to make this bottle?

8-2) What material is the bottle made of?

8-3) What unique feature on some of the parisons indicates they are going to make a bottle with a wide base such as the bottle shown?

8-4) How were the parisons made?

8-5) Why do the parisons not have a recycle code on them?



## Component Group 9

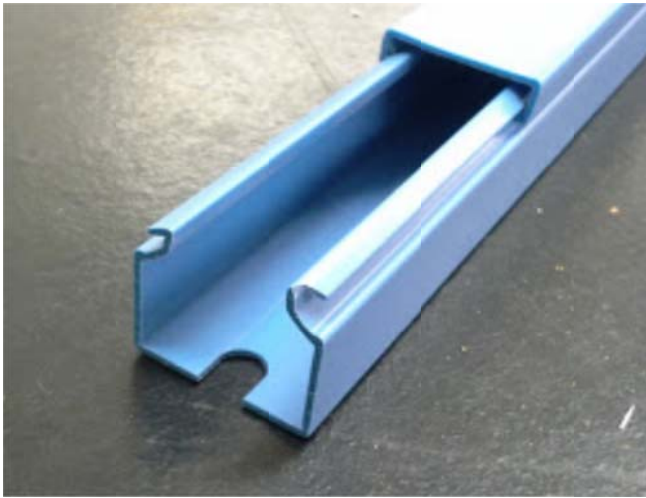


9-1) How were these components made?

9-2) Why were these parts not injection molded?

9-3) What material do you think these are made from? Why?

## Component Group 10

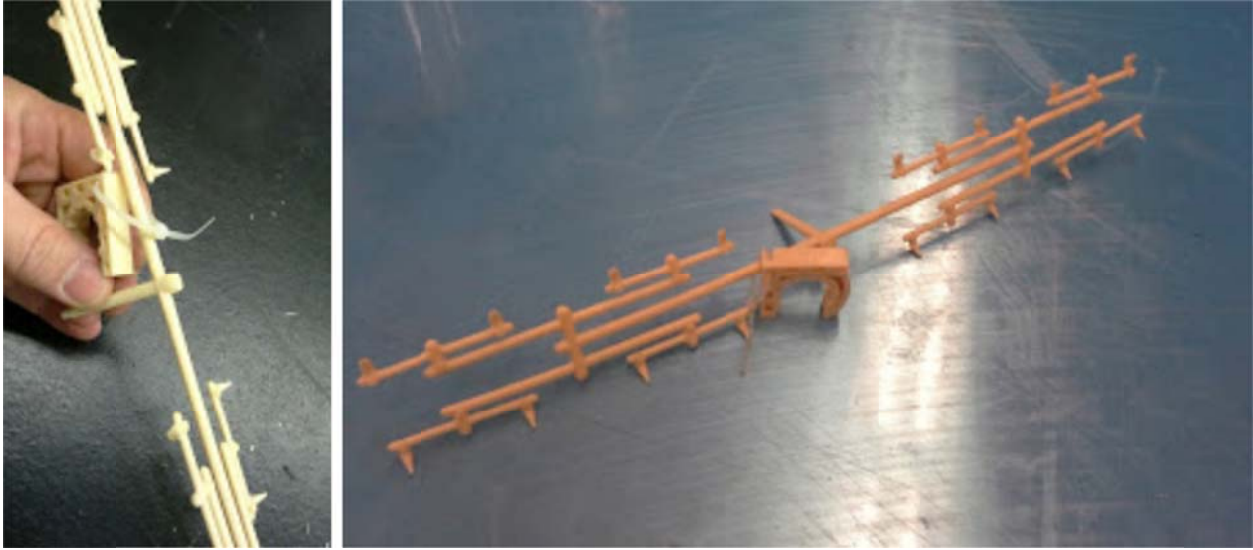


10-1) What (primary) process was used to make this part?

10-2) Explain how the slots and holes were produced.

10-3) Why was this part not injection molded?

## Component Group 11



11-1) What process was used to make these parts?

11-2) How many cavities were in this mold?

11-3) Which cavity (number) did the attached workpiece come from?

11-4) What type of gate was used in this mold?

11-5) Be able to identify the A and B side of this mold.

11-6) Be able to find the sprue puller.

11-7) Be able to identify ejection pin witness marks

11-8) Be able to identify cold slug wells.

## **Component Group 12**

12-1) How were these parts made?

12-2) What material do you think these are made from?