

Test #1 Hardness

1. You are testing the ability of the material to be scratched. A scratch is defined as groove on the surface that can easily be seen.
2. Use the following materials to scratch the surface of the plastic: fingernail, penny, triangular file. Rate the hardness of the material on a scale of 1-5 (1=softest, 5=hardest).

Plastic	1	2	3	4	5
1					
2					
3					
4					
5					
6					
7					

Test #2 Flexibility

1. Take the sample of plastic and fold it in half. Check for any folds, creases, cracks, or a color change in the sample.
2. Repeat this test after exposing the sample to ice water (for 5 min) and hot water (for 5 min). The hot water should be at least 80 °C. Remove the sample using tongs.
3. Record your results for the three temperatures.

Plastic	room temp	ice	hot
1			
2			
3			
4			
5			
6			
7			