

Testing Painted Substrates

Test 1: Cleaning

Children have a tendency of writing on the walls of their rooms. It is important that the walls of the room be painted with a paint that can be cleaned without changing the color of the paint. This method can be used to test paints that are on used on sheetrock, the most common material used for walls in residential buildings. Common household cleaners will be used to test clean ability.

1. For this test, obtain two pieces of sheetrock that has been primed and painted. One piece will be painted a light color, the other piece will be painted a dark color. Make initial observations of the panels and record them.

Initial Observations:

Light Painted Sheetrock	Dark Painted Sheetrock

2. With a Crayon, draw a straight, horizontal line across both pieces of sheetrock. Repeat the drawing of the straight line using a non washable marker, a washable marker, a Sharpie pen, and a black or blue ball point pen. The lines should be drawn about one inch apart, and should be horizontal to each other.
3. Cleaners to be used will be designated by your teacher. To test the cleaners, a small amount of the cleaner is placed on a sponge. The sponge is then rubbed across the mark. Count how many times the sponge must be passed across the mark for the mark to be cleaned off of the paint. Repeat this step using each cleaner. Be sure to test the different cleaners on different spots of each line.

Cleaning Observations:

	Number of Rubs to Clean		Observations	
	Light Colored	Dark Colored	Light Colored	Dark Colored
Crayons				
Non washable marker				
Washable marker				
Sharpie pen				
Ball Point Pen				

1. Which cleaner seems to work the best to remove marks from the paint without damaging the paint?
2. Which cleaner did the worst job of cleaning the paint? Did it also remove the paint from the sheetrock?
3. Examine the ingredients of the cleaners you identified in questions 1 and 2. What are the active ingredients?

Test 2: Adhesion Test

1. Obtain two pieces of sheetrock. Both panels should be painted a light color. One panel should be primed before it is painted, and the other should not be primed. Make initial observations of the panels and record any differences you notice.

Initial Observations:

Light Color (primed)	Light Color (not primed)

2. Now take a small piece of Scotch tape and stick it to the sheetrock. Gently rub your finger across the tape to ensure that it has adhered to the pane. Rapidly pull the tape off of the sheetrock. Observe the sheetrock carefully. Record your observations.
3. Repeat step two using other types of tapes.

Type of Tape	Observations (primed sheetrock)	Observations (not primed sheetrock)
Scotch Tape		
Double Sided Tape		
Duct Tape		

1. Which type of tape pulled of the most paint?
2. Which panel resisted paint removal by the tape the most?
3. Why is the removal of paint by tape not a desirable occurrence?
4. You and your best friend have been selected to be on Trading Spaces. Hilde wants to change the colors of the wall, and then use double sided tape to hang silk rose petals all over the walls. You are certain that your best friend is going to cry when she sees the walls, but Hilde will not budge on her idea. Since you know your friend will take the flowers down after the show, make some painting suggestions to Hilde to ensure the walls do not look too bad after the flowers are taken down.