How to Remove Adhesive Residue A troubleshooting guide for getting rid of the gunk

Problem: A sticky residue has been left after removing a protective film.

Your Job: Safely remove it without damaging the product.

This guide will help you determine the exact nature and scope of the problem, and help you get a procedure in place. (The difference between a *procedure* and a *plan* is that one goes to work on the issue while the other goes into a desk drawer until the issue has gone away. ;-)

Step 1: Assess the severity of the situation

Answer Yes or No to the following:

Is the residue actually an issue? Is it an insignificant but unsightly trace? Will it wear off on its own? Can it removed as a matter of course by a manufacturing operation, such as sand-blasting?

If you answered NO, make sure this issue is known and factored into quality control.

If you answered YES to any of those questions, the adhesive residue actually is an issue and it needs to be removed. Proceed to the next two questions.

What is the scope of the project?

- o A few pieces that can probably be cleaned up manually;
- o Quite a few pieces that will need a significant amount of effort to clean up manually;
- o A great many pieces in a high volume production operation that will probably need some degree of automation to be practical.

How quickly does the residue need to be removed?

- Within a few minutes
- Within a few hours
- Within a few days

NOTES:

Step 2: Assess resources.

Take stock of what is available and on-hand to remove the goo, and realize that the larger the project, the more critical this step becomes. Before you select an adhesive removal agent (see list below), answer the following questions:

To a great extent, the removal agent that you select will dictate the other resources and safety measures that may be needed.

- Do you have the workspace for an un-anticipated project? Give this item special consideration if your removal agent requires "soak time."
- How will you handle and store the material pre- and post-process?
- What devices are needed for applying the adhesive remover?
- Do you have temperature control in the project area? (Frozen adhesives are difficult to budge.)
- Is there exhaust venting and/or a breather apparatus if the remover requires it?
- Do you have sufficient quantities of disposable rags?
- Will you need a power washer? Plastic scrapers? Rubber or nitrile gloves?
- How will you dispose method of solvents, sludge, rags, etc.?

NOTES:

Step 3: Start removal.

A trial process may be needed to verify effectiveness of your materials and procedure.

- Apply removal agent to adhesive residue
- Let agent work for prescribed length of time. (Warm or heated surfaces speed the process.)
- Wipe or scrape off softened residue.
- Wipe down or wash off, as necessary, until residue and/or the agent is fully removed.
- Safely dispose of sludge and rags.
- Tweak and adjust procedure, as appropriate.

NOTES:

Safety First

Not all removal agents are safe to use!

Please use proper safety precautions for your situation.

Calls to the local Poison Control Center and 911 will ruin your day.

See http://www.poisoncontrol.org/index.html for more information.

Selecting an Adhesive Residue Removal Agent

If you only have one or two items to clean up, chances are there are several agents that will work well for you.

If you have a very large number of items to clean up, you may need to acquire removal agents in 1-gallon, 5-gallon or even 55-gallon drums. Note that agents, such as nail polish remover (aka acetone) in 55-gallon-drum quantities pose a few safety issues. Avoid creating a haz-mat situation, if possible.

- Experiment with several removal agents to find the most effective one for your project.
- Use common sense, and read the label on the products before giving them a try.
- Seriously, **READ** the manufacturers' recommendations for the safe use of their products. Some adhesive removal agents could literally blow the roof off of your plant
- Some agents can actually destroy your surface. For example: Adhesive Off by CrystalTek is quite good at dissolving acrylic adhesives. It is also very good at dissolving acrylic surfaces, such as spas, bathtubs, some countertops, acrylic glass, etc.

A Short List of Adhesive Removal Agents

- Liquid dishwashing detergent, preferably in warm water
- Liquid dishwashing detergent that contains ammonia
- Window cleaner that contains ammonia
- Mineral oil aka baby oil
- Acetone (highly flammable)
- Adhesive Off (available in large quantities, dries out skin)
- Goo Gone
- Formula 409
- Petroleum jelly
- Shampoo for hair
- Vinegar
- WD 40 (highly flammable vapors)