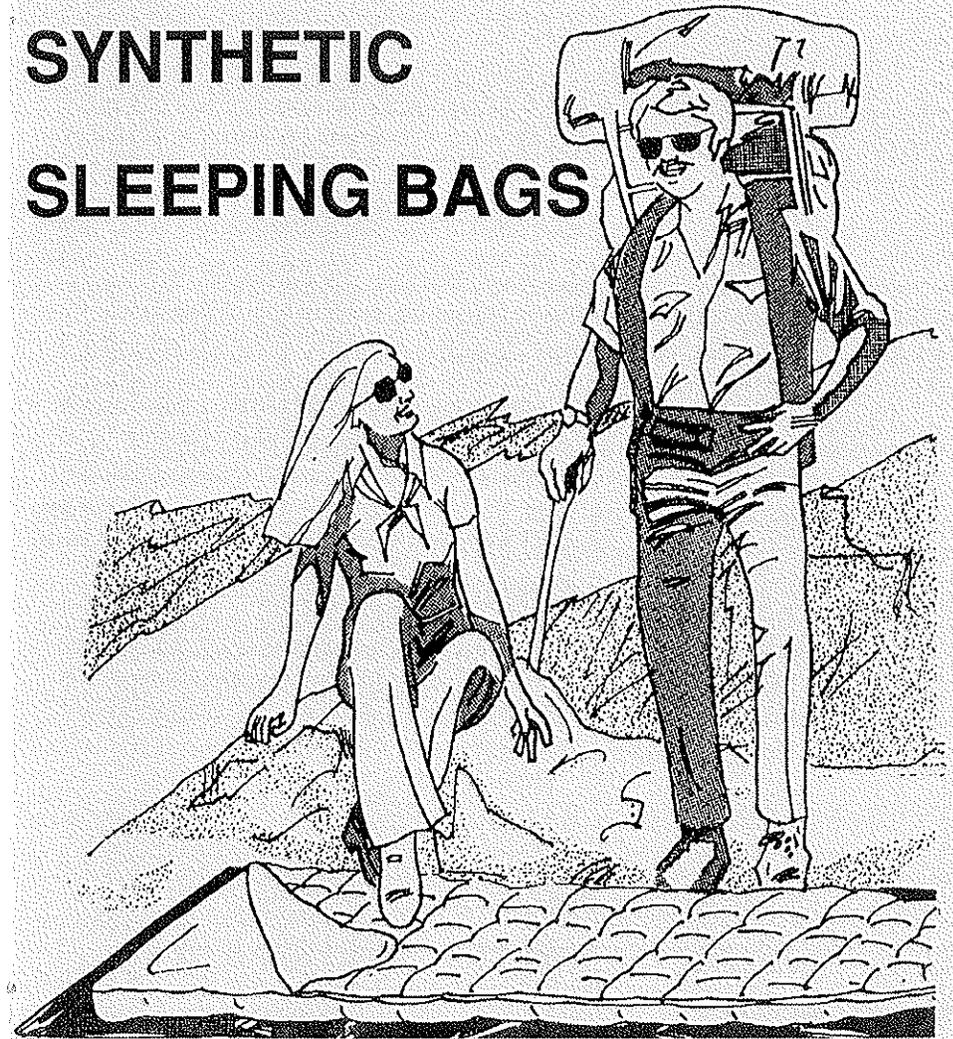


CARE OF DOWN AND SYNTHETIC SLEEPING BAGS



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If your down or synthetic sleeping bag is treated properly, it will give you years of reliable service. If treated improperly, it can easily be ruined by just one small mistake. The following are some general tips concerning the proper use and care of your sleeping bag.

ROLL OR STUFF YOUR BAG PROPERLY

If you have a sleeping bag that should be rolled instead of stuffed, fold the sleeping bag and roll starting at either the bottom or top of the sleeping bag. If you start at the top and finish at the bottom, all the loose ends will be caught which will prevent dirt from getting into the sleeping bag.

If you have a stuff sack, don't roll your sleeping bag before putting it into the stuff sack. Stuff the sleeping bag foot first. This allows the air to be pushed out the top of the bag, thus making the sleeping bag more compressed and smaller. Stuff at least half of the bag into the bottom half of the sack. If the stuff sack is excessively small, replace it with a larger one. This will save you frustration on the trail.

STORE YOUR BAG UNSTUFFED

When not on the trail, down or synthetic sleeping bags should not be stored rolled up or in a stuff sack. Leaving the bag tightly packed for long periods of time causes the filler to compress, bend, and eventually to lose its loft. Instead, store your sleeping bag by either folding it loosely or hanging it over a line in the basement.

DON'T YANK YOUR BAG OUT OF THE STUFF SACK

Be careful when you unpack your bag. The seams (baffles) can be easily torn if the bag is pulled out too hard from the stuff sack.

PROTECT YOUR BAG FROM THE GROUND

Never lay your bag directly on the bare ground where snags, dirt, and moisture can damage the bag. The nylon outer covering of the typical sleeping bag is strong but very thin and should be protected from sharp rocks and twigs. The moisture from the ground reduces the insulating properties of the bag. To protect the bag from the bare ground, use a waterproof ground sheet made of vinyl or nylon.

PROTECT YOUR BAG FROM FIRE AND SPARKS

The nylon outer shell that is typically on most sleeping bags can easily be scorched or melted when close to a fire. Never dry a wet bag, or use an unprotected bag as a seat cushion, near the campfire. Just a tiny spark can instantly melt the nylon outer shell, creating small holes. If the bag contains down filler, the spark can ignite the down.

KEEP YOUR BAG DRY

Whenever you sleep in your bag, body moisture and oils pass into the shell and filler. Body moisture reduces the insulation properties of the sleeping bag. The warmth of a down bag, and, to a lesser extent the synthetic bags, can be regulated by the frequency with which it is aired. In the very cold, daily airing will prevent sleeping bag failures because the heat absorbing moisture found in the sleeping bag, after use, is allowed to evaporate. Airing your bag is very simple. After getting up, open the bag and turn it inside out. Drape your bag off the ground over a bush or rope and in the shade. This should be done every morning after use. After a trip, the bag should be aired thoroughly for a couple of days to prevent damage. If down is not aired thoroughly, it will rot and mildew.

DON'T LEAVE YOUR BAG IN THE SUN AND HEAT

Direct sunlight and storage in a hot place (like the trunk of your car) can damage your sleeping bag. Direct sunlight can bleach and damage the nylon outer shell. Both down and synthetic sleeping bags can be damaged by sunlight and heat. The natural oils of down can easily be burned off by heat which damages the individual feathers and decreases loft. If the synthetic filler is left stuffed in a small sack for an extended time during the hot weather, the synthetic fibers, which are thermoplastic, can be heat-set in the compacted shape which will reduce the sleeping bags' insulation properties.

REPAIR YOUR BAG PROMPTLY

It's a good idea to carry some adhesive repair tape or some thread, needles, and patches when you go camping. Then, when you get a hole in your sleeping bag, you can repair it immediately before you lose some filler (if you have the type that falls out). The adhesive tape will plug the hole temporarily, but it will eventually lose its grip and fall off. The only permanent solution to damage is to stitch on a patch by hand. Replacing a zipper can be very difficult because the bag is usually sewn together in an assembly line. This requires that the sleeping bag be taken apart before the zipper can be replaced. Before taking out the whole zipper, make sure it cannot be repaired. End stops and pull-sliders are usually easy to replace. If you purchased a good quality sleeping bag and the zipper breaks, the manufacturer should repair it.

USE THE APPROPRIATE CLEANING METHOD FOR YOUR SLEEPING BAG

Most sleeping bags have a label attached stating the material used for the cover, lining, and insulation. There should also be a label that has the recommended cleaning procedure. Leave the label on the sleeping bag as a reminder. If the cleaning procedure is printed on a paper label, store it where it can be found when it comes time to clean the bag.

No matter how careful you are with your sleeping bag, it is going to need cleaning periodically. Eventually the accumulated body moisture and oils, dirt, and grime will reach a point where it is both objectionable and reduces the lofting of the filler. Further, some people are allergic to the dirt and dust that collects in the filler.

There are two basic classifications of sleeping bags (down and synthetic) and they require different methods of cleaning.

DOWN

Experts agree that more often sleeping bags are ruined by improper cleaning than all other causes combined, which includes years of hard use. Because of this, some conservatives say never clean a down sleeping bag. When it gets too dirty, get a new one.

The sanitation of the sleeping bag is not the only issue. The body oils absorbed by the down filler attracts dirt and grime which mats the down and, in time, destroys its insulation properties.

With average use, one cleaning a year is enough to maintain the insulating loft. The more cleanings, the greater the chances of ruining the bag. The following cleaning methods are used to clean down. Each of these have advantages and hazards. They are hand washing, machine washing, and dry cleaning.

Hand Washing. There is considerable difference of opinion concerning how to clean a down sleeping bag. However, it is generally agreed that hand washing with soap and water is easier on down than other methods. (If it is done properly.) Here are the steps:

1. Clean out your bathtub.
2. Fill your bathtub with enough lukewarm water (never hot) to cover the bag.
3. Dissolve water softener and soap in the warm water. The water softener helps reduce soap and hard water residue in the down which tends to mat the down. The soap can be found in the grocery store or special down soaps can be found in most camping stores. **Don't use detergents because they will strip the natural oils from the down.** The objective is to get the down clean without removing the natural oils which are necessary for down to provide insulation.
4. Press the bag into the soapy water starting at the foot and working to the head of the bag. This allows for the air to escape from inside the bag.

Warning: Once the bag is wet, it should not be handled roughly or abruptly. The weight of the down will tear the baffles and thus ruin the bag.

5. Gently knead and turn to push the soapy water through the bag.
6. Let the bag soak for about an hour. After the soaking period, scrub off the surface dirt with a sponge or soft brush.
7. Drain the water from the bathtub and hand press the water and soap from the bag.
8. Refill the bathtub with warm water, water softener, and soap. Gently knead the bag to work the soap solution through the bag.
9. Drain again and rinse the bag until the water is clean and free of soap.
10. Again remove all possible water by hand pressing. Let the bag lay in the bathtub for a half hour to let as much water drain as possible. Do not wring or twist the water out.
11. Gently roll the sleeping bag into a laundry basket. If you have to pick up the bag, support all its weight with your hands and arms.
12. Lay the bag outside on a mesh surface like a chaise lounge. Don't hang it on the line because the weight from the water will tear the baffles.
13. After a day, turn the bag inside out. As the down dries keep pulling apart the clumps of down and gently pat the surface of the bag to aid in fluffing. Complete drying may take 3 to 5 days. Make sure the down is completely dry or it will mildew, which will cause the down to smell and damage the down. A faster method of drying your bag is to take it to the laundromat and put it in a commercial dryer set for low or no heat, or air. If done properly, this method of drying can give excellent results. Don't use your home dryer. Many bags have been ruined because home dryers are too small and many don't have the low heat or no heat setting. First inspect the dryer drum for sharp edges or a forgotten bathmat. Put the bag in with a clean sneaker without the laces. The weight of the sneaker will break up the down, and the rubber will build up static electricity to renew the loft. Run the dryer on low heat, no heat, or air until the bag is completely dry. Even if you completely dry your bag outdoors, you should put it through a dry cycle to fluff up the down to its original loft.

Machine Washing. Some manufacturers recommend machine washing. However, these sleeping bags are of high quality with strong exterior construction and good strong fabric. Do not machine wash your sleeping bag unless recommended on the care label. Otherwise hand wash. When machine washing, use the following steps:

1. Go to the laundromat and use a front loading commercial washer (double load size) not a top loading washer. The top loading agitators agitate and twist the bag too much.

2. Use the gentle cycle and warm water (not hot), water softener and soap (not detergent) or use one of the soaps made especially for cleaning down.
3. Rinse twice to remove all soap.
4. Tumble dry in a large commercial dryer on low heat, no heat, or air, with a clean sneaker without the shoe laces. Drying takes 2 to 4 hours. Make sure the down is completely dry. NOTE: If the sleeping bag fails to loft properly, you probably haven't rinsed out all the soap. In this case, rinse again and re-dry.

Dry Cleaning. Some manufacturers recommend dry cleaning. The major reason for this is too many people ruin their bags by improperly hand or machine washing and drying. Be sure to select a reputable dry cleaner. Most dry cleaning is done today with strong synthetic chemicals made up of chlorinated hydrocarbons. The most common is perchloethylene known as "perk." Because it is so strong, it will strip away the natural oils of the down and eventually turn down into string. The odor from this dry cleaning solvent can be lethal even when it's barely noticeable. Because dry cleaning solvents are toxic, the U.S. Bureau of Standards warns against dry cleaning down as altogether too risky. Another dry cleaning chemical, known as Stoddard Solvent, is a mild solvent and not as harsh on down. However, this chemical will also attack down's natural oils, but to a lesser degree than "perk." NOTE: Dry cleaning will remove some of the water repellent treatments and the adhesive patches that haven't been sewn on. If you do have your bag dry cleaned, air it outside for at least a week to remove any traces of the chemical solvent. To test if the bag has been aired long enough, get inside the bag, close it up, and breathe. If you can still smell the dry cleaning chemical, you need to air the bag some more.

One reason it is advisable to have a bag dry cleaned is to redistribute the down. The redistribution of the down that occurs during dry cleaning is a result of the mechanical tumbling in the dryers. The same mechanical action can be duplicated in a commercial dryer at the laundromat. Set the dryer on low heat, no heat, or air, and throw in a sneaker without the laces. The rubber/nylon combination helps to generate static electricity needed to loft the down.

SYNTHETIC

There are several different types of synthetic fibers used as filler (insulation) in sleeping bags. Most of the fillers are made from the polyester fiber. However, a new one called Thinsulate is made from the polyester and olefin fiber. The care of the synthetic sleeping bags is determined to a large extent by the type of filler. Manufacturers with trade names such as Hollofil II, Polar Guard, Dacron 88, and Thinsulate recommend cleaning your sleeping bag by hand or machine washing and drying. Do not dry clean. The manufacturer of Hollowbond II filler recommends either hand washing, machine washing, or dry cleaning.

Hand Washing. If you prefer the gentlest method of washing your synthetic sleeping bag, hand washing is the method to use. The following are the steps for hand washing.

1. Half fill the bathtub with warm water (not above 140° F).
2. Dissolve a mild detergent or soap and water softener in the water.
3. Put your bag into the bathtub and gently press the air out of the bag starting at the foot and working to the head of the bag.
4. Let the bag soak for about a half hour. Then gently squeeze the soapy water through the bag several times. If your bag is unusually dirty, it may require a second washing.
5. After all the soap is washed out, rinse the bag in warm water (not above 140° F) and fabric softener. Fabric softener lubricates the fibers and reduces static electricity so your bag will have more loft.
6. Drain the water out of the tub and press the water out of the bag by pushing down on the bag in the bottom of the tub.
7. Hang your bag outside to dry. Most synthetic sleeping bags dry very quickly, in an hour or less in open air - another alternative is to dry your bag by putting it in a large commercial dryer set for low or no heat. High heat can decrease the crimp in the fiber, which in turn reduces the insulation properties of the bag.

Machine Washing. This is a fast and easy way to clean your synthetic sleeping bag. Here are the steps:

1. Take the sleeping bag to a laundromat where you can use one of the front loading commercial washers. Home washing machines, especially the top loading agitator types, are very hard on the fabric and stitching.
2. Before washing your bag, zip it closed and safety pin the filling to the outer nylon shell if there are large areas of filler without quilting. This will hold the filler to the sleeping bag shell and reduce the strain on the seams. Make sure you have sharp safety pins or you can snag the outer shell.
3. Set the washing machine for the gentle cycle.
4. Dissolve a mild detergent in lukewarm water. (Never use hot water.) Check the water temperature with your hand while the machine is filling. If the water is too hot on your hand then it is too hot for your bag.
5. Add fabric softener to the rinse cycle. The fabric softener lubricates the fibers and reduces static electricity which affects lofting.
6. Tumble dry, using a large commercial dryer on the no heat setting.

Dry Cleaning. Most of the filler made from polyester fiber and olefin should not be dry cleaned, with the exception of Hollowbond II. The reasons for this are the following:

1. Dry cleaning can dissolve the resin and silicone finishes used to stabilize the fibers. If dissolved, the sleeping bag loses some of its insulating properties.

2. Dry cleaning may shrink or dissolve some filler fibers.
3. Both polyester and olefin are thermoplastic fibers. This means that heat can melt the fiber. When these fibers are manufactured, they are crimped with heat. If the fibers are exposed to heat above 140° F, they begin to lose their crimp, which results in loss of loft and insulation properties. In dry cleaning, these fibers will most likely be exposed to temperatures above 140° F.
4. It is difficult to air out the dry cleaning chemical. This is especially difficult for Hollofil, because the dry cleaning chemical goes into the hollow fiber. Some dry cleaning chemicals are lethal. NOTE: If you have your bag dry cleaned, air it outside for at least a week to remove any traces of the chemical solvent.

RECOMMENDATIONS FOR CLEANING SLEEPING BAGS

Type of Sleeping Bag	Hand Wash	Machine Wash	Dry Clean
DOWN	<p>Best method - Wash using soap and water softener</p> <p>Don't use detergent - it will strip natural oils from feathers</p> <p>Machine dry on low heat or no heat. Heat can burn off the natural oils</p>	<p>Use only if recommended by manufacturer</p> <p>Wash with soap and water</p> <p>Don't use detergent - it will strip natural oils</p> <p>Machine dry on low heat or no heat. Heat can burn off the natural oils</p>	<p>Not recommended - Dry cleaning chemical residue toxic when inhaled</p> <p>Attacks downs natural oils</p>
SYNTHETIC	<p>Gentlest method Use detergent or soap and water softener</p> <p>Washing or drying should not be above 140° F</p>	<p>Fastest and easiest method</p> <p>Use detergent or soap and water softener</p> <p>Washing or drying should not be above 140° F</p>	<p>Not recommended - Dry cleaning chemicals dissolve resin and silicone finishes used to stabilize fibers</p> <p>Fibers lose crimp above 140° F</p>

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