



Preserving Your Memories: How to Preserve Your Synthetic Clothing



Introduction

The collections of Hagley Museum and Library contain many “firsts” of clothing made from synthetic textile fabrics pioneered by the DuPont Company in the 1930s and later. Included are clothing made of rayon, nylon, Orlon®, Dacron®, Lycra® as well as wear-tested materials. In 2010, the museum received a conservation project support grant from the Institute of Museum and Library Services (IMLS) to survey the collection.

This short brochure describes some of the tips we learned that will help you protect and preserve your keepsake clothing made of synthetic textile fabrics. It contains advice on simple things to do to care for your synthetic clothing and garments at home. For antique synthetic clothing collectors and small museums, or to address damage or repairs to your keepsake clothing, contact the American Institute for Conservation of Historic and Artistic Works (<http://www.conservation-us.org>) for textile conservators in your area.

This late 1960s' dress is made of the synthetic fiber Qiana® and was designed by Charles Kleibacker. Qiana® was introduced by DuPont in 1968 and combined the feel and appearance of silk with the easy-care qualities of polyester.



Characteristics of Synthetic Textile Fibers Worthy Of Note

Synthetic textile fibers have characteristics that differ from those of natural fibers, and must be understood and distinguished from each other in order to properly care for them. Most clothing is no longer made from pure, single fibers, but is made from blended fabrics, a process with several useful characteristics used to maximum advantage by the fabric industry. Blends between synthetic and natural fibers tend to share the characteristics of the individual fibers. However, though a 100 percent polyester shirt may be said to be resistant to moths, a ladies' gown made of 65/35 polyester/cotton blend may not be.

Rayon fabric is highly moisture absorbent. It wrinkles easily and becomes weak when wet. It is sensitive to mildew, silverfish, and other clothes insects.

Nylon fabric is exceptionally strong and durable, with high resistance to abrasion. Unlike rayon, it has low moisture absorbency. Nylon has a tendency to pill. It is resistant to moth and mildew but sensitive to ants and roaches. It absorbs and holds body oils, easily collects static electricity, but retains its shape very well. It yellows and weakens when exposed to light.

Polyester fabric is strong and durable both wet and dry. It is resistant to degradation by chemical bleaches, mildew, and insects. Polyester is resistant to wrinkling, abrasion, shrinkage and stretching, but easily collects static electricity. It has a tendency to pill, and it is sensitive to heat. It also absorbs body oils.

Acrylic fabric has lower durability (compared to polyester and nylon), with a tendency to pill. It is soft and warm with a wool-like feel. Because it drains easily, it dries quickly. It is wrinkle-resistant and retains its shape very well. It is resistant to mildew and insects but has a tendency to melt at medium to high temperatures. It has exceptional resistance to fading in sunlight.

This ca. 1950s child's set of matching sweater, cap, and booties is made of DuPont Orlon® which has the feel of wool.



Handling

To preserve your synthetic clothing for future generations:

- Limit handling to the barest minimum.
- Wash your hands thoroughly before handling clothing.
- Examine clothing to understand its strengths and weaknesses before handling.
- During handling, keep clothing away from lotion, make-up, perspiration, and body oils.
- Always support clothing on a flat rigid surface, especially when moving it.
- Large items should be handled by two or more people.
- Rayon is weakest when wet. Handle wet rayon gently, and do not pull, tear or abrade.

Useful Tips

- Vacuum fragile clothing through a nylon screen.
- When folding clothes, use acid-free tissue to create gentle folds to avoid sharp creases.
- Hang clothes on thick hangers with rounded muslin-covered polyester batting.
- Hang garments in cotton wardrobes.
- Store items in gray acid-free boxes with lids.
- Support items on a flat rigid surface.
- Provide cotton twill slings for lifting objects.



To clean fragile clothing, vacuum through a nylon screen as shown on the right side of the photo.

Storage

Most people simply hang their clothing in the closet. This is fine if this is a garment that will be worn again soon, but what about long-term storage for that beautiful polyester wedding or prom dress? If clothes and garments have been worn or used in any way, they should be cleaned first to remove sweat, lipstick, cosmetics, body oils, and perfume before they are put into long-term storage. If they are not removed from the clothing, these contaminants will change color over time and may permanently stain the fabric. Check the garment manufacturer's label for correct washing and pressing instructions. For safe and proper cleaning, consult a textile conservator at <http://www.conservation-us.org>.

There is less stress on clothes if they are laid flat for storage, as they may be too fragile to hang from any parts. Some garments may be too heavy to hang from shoulders or straps, or they may droop if left hanging for a long period of time. Other clothing should never be hung; knits will stretch and fray at the hanging points, and may develop holes.



*When folding clothes,
use acid-free tissue to
create gentle folds and
avoid sharp creases.*

Storage Boxes and Containers

Clothes sometimes return from the dry cleaners in clear plastic bags. It is also common for people to keep their garments in clear plastic boxes or containers. The rationale for using clear plastic bags and containers is that they provide easy visual access to the contents without having to open every bag to find a particular dress. Their use for long-term storage, however, should be discouraged because:

- They allow light through, which can make the clothing fade.
- Over time, certain plastic storage materials will degrade or give off gases that will harm the clothes.
- Air-tight plastic storage containers are good only if they remain moisture tight. If they leak, moisture build-up inside them will lead to mold growth inside the containers.
- In the event of a water leakage within the storage area, plastic boxes will keep the objects sitting in a pool of water, with bad consequences from dye migration.

It is better to store items in gray acid-free cardboard boxes with lids. Boxes can be labeled with a photograph of their contents. In the event of a leak, acid-free cardboard boxes will absorb some of the water and keep the clothing drier. They allow some air circulation since they are not air tight. Insects can sometimes crawl into cardboard boxes, so it is important to keep the storage area clean. If items have to be hung for storage, you should use full-enclosure, breathable cotton canvas wardrobes. Tyvek® storage bags are also recommended.



Storage Procedures

- Store all clothing flat whenever possible, with layers of acid-free tissue padding to separate parts of the clothing and to hold up its shape and reduce creases.
- Hang items only if they are strong enough to hang safely. Use thick hangers that have been rounded with muslin-covered polyester batting or acid-free tissue. Though several items may be hung side-by-side in a wardrobe, items should be separated from each other inside protective Tyvek® storage bags so that they do not rub against each other.
- When removing a hanging garment from a hanger, always remove the hanger from the bottom of the garment to avoid stretching the neck line.
- If long pants, shorts, or skirts are clipped at their waists and hung lengthwise, clips should be applied over protective cotton cloth to avoid making clip holes. Use plastic nylon clips instead of metal ones to avoid the corrosion that can occur with high humidity.
- Never use metal pins or clips to hold or fold items. Where clothing manufacturers have provided loops inside a skirt and blouse, use these hooks instead of shoulder straps or necks.
- Fold all knitted items and place them on flat, rigid surfaces.
- Rolling rayon on tubes with acid-free tissue inter-layers will help reduce wrinkles.
- Hang or lay clothing by natural folds and seams to avoid ruining a garment's shape.
- Store items full-size and unfolded. If clothes have to be folded because of space constraints, use acid-free tissue rolls, tubes, and pads to create gentle folds, and avoid sharp creases.
- Store objects in individual boxes as much as possible. If several objects are stored in the same box, keep larger and heavier objects on the bottom. Avoid crushing by placing items on platforms or divider trays. Attach cotton twill or Tyvek® slings to the bottom of the trays for lifting them from the box.
- Do not overstuff storage boxes, as this can damage the garments.



Ideally, clothing should be stored flat. If they are strong enough to hang safely, hang clothes on thick hangers with rounded muslin-covered polyester batting.

Keeping Clothes Fresh and Clean in Storage

- Always keep the storage area clean and free from insects.
- Do not use mothballs inside storage containers; the chemicals from mothballs get into the clothing and it is difficult to remove them.
- Do not use perfumes or other sweet-scented aromas to freshen the clothes in storage; some of them may stain the clothes and can attract insects.
- To keep clothes fresh, place a small amount of baking soda in a small breathable (woven) nylon sack where you're storing the clothing. Avoid loosely woven sack material that will allow baking soda to leak onto the clothing.

Storage Environment

- Keep all synthetic clothing in total darkness.
- Store all synthetic fabrics in cool temperatures, especially rayon which may fall apart at high temperatures.
- Keep items out of damp basements and away from hot radiators.



Hang garments in breathable cotton wardrobes.

Sources of Materials

1) Gaylord Brothers - gaylord.com or (800) 926-9580

2) Talas - talasonline.com or (212) 219-0770



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