

All About SHIRTS

Professional
CLEANERS
CARE



All About Shirts

"DISAPPEARING" PINSTRIPES

Drycleaners and launderers all over the U.S. have, for the last seven years, witnessed the mysterious failure of the colored yarn in men's 100 percent cotton shirts. Close examination of the shirts, under a strong light, reveals that the colored yarns are missing, leaving a skeletal framework of the white yarns. This problem first surfaced in the early '80s when men's fashion changed to include bright-colored striped shirts. Reactive dyes are the only dyestuff which can be used to achieve these bright colors.

It was not until 1992, and after extensive interindustry effort—including IFI, shirting manufacturers, and dye experts—that a remedy to the problem was found. It was identified that reactive dyes, for reasons still not completely understood, cannot withstand normal commercial laundering procedures. These shirts need a special rinse cycle when commercially laundered to avoid damage. Only now are the manufacturers recognizing the need to add these instructions to the care label. Launderers, in an attempt to satisfy consumers, can modify their wash formula. When these shirts are laundered in a special formula, which includes a "pH controlled" or "buffered" sour, the damage can be prevented.

IFI has informed their members that they should make this recommended modification to their wash formula. Commercial laundering is one of the best ways to give striped shirts that "professional crisp look." If the care label in your shirt does not state "Commercial Launder in a pH Controlled Sour" and many do not, request that your launderer do so. This will ensure that your shirts will be more serviceable and last longer.

Previous Damage

Current shirt failure problems are the result of a progressive weakening of the fiber from previously acceptable laundry procedures used by the laundry industry. Laundries are now using special wash



Some colored yarns in this shirt have been lost, causing the white area as shown.

formulas, which were not specified until mid-1992, to avoid future damage. However, some shirts will continue to show damage because of previous washings.

The manufacturer should accept responsibility for those failures, which are beyond the control of the launderer. Laundering with a buffered sour now does not necessarily relieve the shirt manufacturers of the responsibility of the fabric damage.

HOLES AND TEARS IN OXFORDS

Tiny holes can appear at random throughout an oxford shirt due to the weaving process. These should not be confused with damage from bleach. Oxford consists of two, thin warp yarns to every soft, thicker yarn in the filling direction. The unbalanced construction causes the thin yarns to break, leaving tiny holes. Manufacturers could use a higher twist in the yarn to retard the development of holes, but eventually any oxford weave will develop tiny pinholes.

In addition, tears in oxfords occur in the direction of the softly twisted, thicker yarns. All the yarns in an oxford receive the same care process, but the constant abrasion in wear causes the thin yarns to weaken and tear.

ADVANCED
CLEANERS



All About Shirts

SHRINKAGE

Most dress shirts are difficult to shrink. The manufacturer has already allowed for the normal two percent and progressive shrinkage requirements. This shrinkage is usually not enough to cause a complaint. Shrinkage beyond this is usually due to poorly stabilized materials.

Shrinkage complaints can easily be resolved by measuring the collar and sleeve length. Measure the collar from the end of the buttonhole to the center of the button. Measure the sleeve length in a straight line from the center of the back of the collar at the seam to the end of the cuff. If these measurements correspond to the shirt size, it has not shrunk.

WEAR LIFE EXPECTANCY

Determining how long a shirt should last is difficult due to the variances in frequency of wear. However, industry experience shows that, on average, shirts have a two year wear life expectancy. The number of laundings is a better measuring method. The average shirt should have a wear life of 35 to 50 washings. This will fluctuate depending on the amount of abrasion and strain placed on the shirt during wear, the fiber content, the type of fabric, and the laundering procedure.

PERSPIRATION AND ANTIPERSPIRANT DAMAGE

Perspiration, if allowed to stay in a shirt, will eventually stain and also weaken the fabric, allowing the weakened area to be removed during washing. Aluminum chlorides found in antiperspirants will also weaken the fibers under the arm. Controlled use of antiperspirants and frequent washings immediately after wear may minimize this type of damage.

INTERFACING DEFECTS

What causes puckering and excess fabric in the shirt collar after laundering? This is caused by shrinkage of the interfacing (within the collar). If the shirt is laundered and the interfacing shrinks excessively, it will cause the puckering of the outer fabric. The manufacturer must select an interfacing which is compatible with the shirt fabric.

What causes the collar and cuff to have a mottled gray or shiny look in specific areas? This occurs when excess adhesive is used to fuse the collar or cuff fabric and the interfacing. This excess adhesive softens in pressing and penetrates the outer fabric of the collar and cuffs. This can be prevented by the correct selection of an adhesive that is compatible to commercial laundering.

Why does yellowing occur? Because some interfacings on shirts react adversely with chlorine, laundries often use other oxygen-type bleaches which do not react with chlorine retentive resins. If chlorine bleach is used on this type of fabric, yellowing could occur.

BUTTONS

Buttons may crack during pressing even though the press padding is in excellent condition and the procedures used are correct. The reason for this is that there is an inherent problem in the button or the way the button was applied to the shirt. The majority of shirt buttons are made from a polyester resin. The strength of the button depends on the amount of polyester in the resin; some imported buttons contain less polyester.

Off-quality buttons are graded because they do not meet the requirements in one or all of the following criteria: color, visual inclusions, chips or cracks, and uniformity of size. Some manufacturers use less expensive, off-quality buttons to save money, but this sometimes results in higher than average breakage.

FUGITIVE DYES

The Care Label Rule states that the color in a garment must withstand the recommended care procedure. If the dyes in a multicolored shirt are not colorfast to water, bleeding will occur. The dye will migrate into adjacent areas during the washing process. This migration of the dye into the surrounding areas is not acceptable unless the fabric is a madras (plaid or stripe that is guaranteed to bleed).

Some dyes dissolve in water and are partially removed during laundering. After the first laundering, the lightening of color may be apparent, or it may be progressive and only noticeable after several care procedures.

CONSUMER SPILLAGE

Household products like medicinal agents, strong acids, the acid residue of some food-stuffs and beverages, or liquid chlorine bleach can easily damage a shirt. Spillage of a strong household product causes localized fabric weakness or color loss in the area of contact with the fabric. This type of damage may not show up until after washing. This type of staining is not unique to shirts.

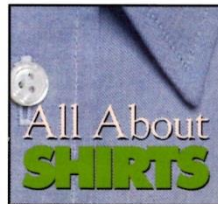
**ADVANCED
CLEANERS**



**INTERNATIONAL
FABRICARE
INSTITUTE.**

*The Association of
Professional Drycleaners
and Launderers*

12251 Tech Road
Silver Spring, Maryland 20904
(301) 622-1900



© 1993, International Fabricare Institute

All About
SHIRTS

**Professional
CLEANERS
CARE**

