

Processing Fragiles

Items encountered in a drycleaning operation may be classified as fragiles for the following reasons:

- 1) Fiber Content — silk, angora, rabbit fur, cashmere, etc.
- 2) Fabric Construction — felt, loose weave or knit, laminated, etc.
- 3) Garment Construction — fragile assembly, trim, possibility of distortion, etc.
- 4) Color — pure white, very light pastel, fiber prone to greying, etc.

Garments considered to be fragile should be set aside for special handling. Care labels should be checked; drycleaning may be the only option or a judgement must be made that it is the best option. Suspect dyes, sequins, trim items, etc. should then be tested for compatibility with your drycleaning solvent. Should testing indicate a potential problem and the item is labeled dryclean only, then a customer release is needed, or the garment returned as unserviceable. Remember, under the current labeling law, if drycleaning is not stated on the label, the garment is assumed to be not drycleanable. Some of these are, in fact, drycleanable. Wet cleaning is certainly a valuable and necessary option in this day and age. In the end, it is the expertise of you and your staff that will be called upon to meet these daily challenges in your business.

Now that the decision has been made to dryclean, the fragiles should be sorted into similar classifications as to colors, degree of fragility, type of trim, etc. Nets are needed on extra fragile trim, acrylics and loose weaves subject to distortion, etc. Sort into small loads (50% of machine capacity or less). This is done to limit the amount of free soil to which the garments are subjected and to increase the solvent to soil ratio. In addition, by using high solvent levels and shorter running time, we reduce mechanical action. Running times can range from 3 to 8 or 10 minutes, depending on the size of the load, the soil level and durability of the classification. Some very fragiles can be run with intermittent wash motor or with no agitation; just solvent circulation. We have assumed, through all of this, that Fabritec procedures have been followed, i.e.:

Solvent NVR is less than 1%

Solvent temp. is between 75 – 85°F

Solvent flow is sufficient to change the solvent in the wheel every 1 to 1 1/2 min.

Solvent level is a minimum of 75% (in gallons) of the machine capacity (in pounds)

Solvent color is 75% or better

Fabritec detergent has been added at the rate of 1/4 oz. per pound

Any garments spotted on the wet side have been flushed, feathered and dried or leveled following proper procedures.

No fragiles should be cleaned while wet with localized water.

Extract time depends on the garments involved: silks and sheers — 1 min. or less; regular work — 1 to 1 1/2 min.; cotton, heavy drapes, etc. — 2 min. or more.

Drying time and temperatures are critical. If your dryer operates on a timer, be sure to compensate for the size and type of load. If you have a drying sensor, be sure to clean and check it on a regular basis. Following extract, allow the load to tumble for a minute, then tumble with fan only for a minute or two, then turn on heat. In most cases, the maximum temperature on fragiles is 120°F. This is the air temperature leaving the cylinder. That is where the dryer thermometer or thermostat probe must be located. If it is not located in this position, one must be installed or the machine thermostat compensated. Lint bags and screens must be cleaned regularly and coils inspected and cleaned on schedule so that air flow is not restricted. Fragiles that cannot be tumbled should be hung or laid in a cabinet to dry at low temperatures where the solvent vapor is contained and recovered.

Occasionally, you will see a discussion in an industry trade journal or association publication instructing you to dryclean a certain fragile garment with “no moisture”. Let us assure you that, while this may be valid for some conventional systems, the procedure does not apply to a properly run Fabritec system. The very small amount of moisture added as a component of Fabritec detergent is about a thimble full on a 10 lb. load. This is not added as free water, but is needed to hydrate the detergent as it is attracted to the fabric, allowing the insoluble soil to be lifted from the fibers and held in suspension in the solvent. Thus, the presence of Fabritec detergent, in the proper concentration, is mandatory to prevent soil redeposition on fragiles, to remove insoluble soils and to impart the pleasant fabric hand so characteristic of a Fabritec system.

There are three factors that contribute to shrinkage of garments in drycleaning:

- 1) Excessive Mechanical Action
- 2) Excessive Heat

3) Excessive Moisture

It has been established that two of these three factors must be present to cause excessive shrinkage. In the procedures discussed, every attempt has been made to control the temperature and mechanical action in the processing of fragiles. Fabritec research has confirmed that there is virtually no fabric that will exhibit undue shrinkage when processed using the recommended procedures and correct additions of Fabritec detergent.

