

Fabric Finishing and Laundry (Major Core)

B.A. V Semester (NEP 2020)

Unit IV

Laundry and Dry Cleaning of Fabric

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Agitation helps remove dirt which is usually mobilised by surfactants from between fibres, however, due to the small size of the pores in fibres, the 'stagnant core' of the fibres themselves see virtually no flow. The fibres are nevertheless rapidly cleaned by [diffusiophoresis](#) carrying dirt out into the clean water during the rinsing process.



Laundry processes are the steps to be followed when laundering personal or family clothes. They include the following:

1. Sorting: This is grouping the materials according to
 - (i) colour
 - (ii) types e.g. cotton, wool, polyester, etc.
 - (iii) degree of dirt, and highly soiled fabrics.
 - (iv) colour-fast and non-colour fast fabrics.
2. Mending: This is sewing or stitching split seams or tears and fastening loose buttons and hooks before washing.
3. Stain removal: Removal all stains accordingly before washing.
4. Soak or steeping: This is leaving the materials in water for some time to loosen surface dirt.
5. Washing: Washing is removing dirt from clothes with the aid of water and soap using any of the following methods:
 - (i) Washing by rubbing
 - (ii) Washing by kneading and squeezing
 - (iii) Washing by squeezing alone
 - (v) Using a washing machine if available.
6. Boiling: Boiling is used when necessary. It helps to whiten and disinfect clothes.

Methods of Washing:

Manual washing:

Laundering by hand, involves soaking, beating, scrubbing, and rinsing dirty textiles. Water for the laundry would be hand carried, heated on a fire for washing, then poured into the tub.

Removal of soap and water from the clothing after washing was a separate process. First, the soap would be rinsed out with clear water. After rinsing, the soaking wet clothing would be formed into a roll and twisted by hand to extract water. The entire process often occupied an entire day of hard work, plus drying and ironing or pressing.

Machine washing:

A clothes washer technology developed as a way to reduce the manual labor spent, providing an open basin or sealed container with paddles or fingers to automatically agitate the clothing.

Dry cleaning

Is any cleaning process for clothing and textiles using a solvent other than water.

Dry cleaning still involves liquid, but clothes are instead soaked in a water-free liquid solvent (usually non-polar, as opposed to water which is a polar solvent). Tetrachloroethylene (perchloroethylene), known in the industry as "perc", is the most widely used solvent. Alternative solvents are 1-bromopropane and hydrocarbons.

Most natural fibers can be washed in water but some synthetics (e.g., viscose, lyocell, modal, and cupro) react poorly with water and should be dry-cleaned if possible.

Dry cleaning

Drycleaning is very similar to regular home laundering, but a liquid solvent is used to clean your clothes instead of water and detergent. The solvent contains little or no water, hence the term "dry cleaning".

Drycleaners use very large and technically advanced computer-controlled dry cleaning machines. Your clothes do get wet, but the liquid solvent used evaporates much more quickly than water. Since solvent is used instead of water, it is not drained and disposed of as a washing machine does with soiled water. The solvent is re-circulated through filters throughout the entire cleaning cycle to remove impurities loosened during the cleaning process. Then the solvent is distilled to be crystal clear and totally purified before it is used again.

- Drycleaning has two distinct advantages over cleaning with water or "wet" cleaning: Water swells the fibres. It is this swelling action which causes shrinkage and dye fading in many garments. Drycleaning solvents are much more superior to water in the removal of oily or greasy residues which are the base component of many stains.
- After your clothes have been properly cleaned, your cleaner "finishes" (presses) your garments using specialized finishing equipment.
- Finishing processes used vary, depending on the garments being processed, but generally involve steaming and pressing.
- Steaming is effective for relaxing wrinkles, enhancing pressing, and also serves to enhance cleaning by removing any remaining water-soluble materials and killing bacteria.
- Pressing is the final step and produces crisp, smooth results difficult to duplicate at home with a hand iron. This requires considerable skill and training and allows for a final inspection of the garment. After your garments have been pressed, they are inspected one last time and packaged to await your arrival.

The Dry cleaning Process!

Step 1: Identification and Inspection

When you leave garments for cleaning they are inspected and identified with a tag which stays with the garment until it is returned to you.

Step 2: Spotting and stain removal

Your trained drycleaner skillfully removes spots and stains in conjunction with a number of specialized solutions.

Step 3: Sorting

Garments are sorted for cleaning by category and colour with consideration being given to the manufacturers recommended care label instructions.

Step 4: Drycleaning

Garments are then drycleaned using a special internationally standard clear solution which removes dirt and grease safely from the most delicate and sensitive fabrics.

Step 5: Drying

Garments are dried using temperatures appropriate to the type of garment and in conjunction with any recommendation from the manufacturer's care label instructions.

Step 6: Pressing and Finishing

Garments are pressed to give those crisp clear pleats and creases that signify a drycleaned garment. Garments are steam formed to restore body and shape and remove wrinkles.

Step 7: Final inspection and packaging

Garments are given a final inspection and prepared for collection.