



VISCOSE RAYON AND ITS VARIOUS ASPECTS – CONCLUDING PART

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Disadvantages of Viscose Rayon

- Viscose rayon lacks resilience natural and creases readily.
- These fibers weaken when wet. It has only 30 to 70 percent of its usual strength when it's wet.
- Microorganisms (molds, mildew, fungus, bacteria) affect the color, strength, dyeing properties and luster of rayon.
- Viscose Rayon is attacked with iron in the form of ferrous hydroxide weakens the yarns. Therefore staining, marking or touching of rayon to iron or iron surface should be avoided.
- Viscose rayon fabrics tend to shrink more than cotton fabrics of similar construction. When spun viscose rayon is blended with wool, the great amount of shrinkage characteristic of the wool is reduced.
- Garments made from this material are vulnerable to tearing as it's agitated in the washer and tumbled in the dryer. Hence cannot be machine-washed or dried. The process used to make this material may need dry cleaning
- While some manufacturers have made considerable efforts to ensure clean production, there may still be companies that create pollution and toxic chemical waste during its manufacturing.



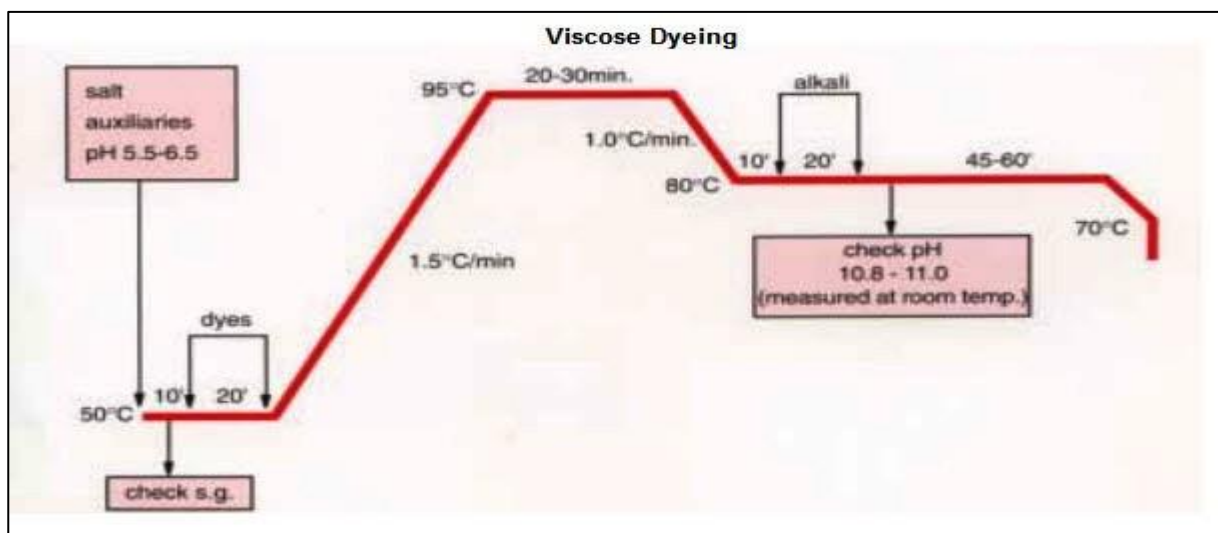


Fig 1.1 Viscose dyeing schematic diagram

Properties of Viscose, their effects on its processing and some recommendations

- Viscose has higher dye affinity than cotton because of its different ratio of crystalline and amorphous regions compared to cotton.
- It has irregular serrated skin and cross section. That leads to inferior diffusion and penetration into the fiber during processing. So, more kinetic energy is needed for dyeing and hot brand reactive dyes are recommended.
- Viscose loses tenacity when wet. Hence, more care needed to avoid damage.
- Wet Viscose fibers swells with temperature. Hence in package dyeing, liquor circulation should mainly be IN to OUT. OUT to IN should be less than 30 seconds.
- Swelling of fibers makes wet fabrics stiff. Therefore, higher MLR than for cotton is recommended.
- Viscose may contain residues of Sulphur. Mild peroxide bleach may be necessary to remove them.
- Viscose is creamy white in color, naturally clean. Fabrics are generally free from natural fats and waxes, moles and seeds. Hence, little preparation is required before dyeing.
- As dyes with higher substantivity are used, it is recommended to use 'Migration dyeing techniques and salt are recommended to be added after dye.

Wishing you a great week ahead!

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