

## MICROFIBER – PART I

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### Introduction

Microfiber is synthetic fiber finer than one denier or one decitex, having a diameter of less than ten micrometers. This is smaller than the diameter of a strand of silk, which is about 1/5 the diameter of a human hair. Although microfibers can be produced from acrylic, viscose and polypropylene, but polyester and polyamide are produced commercially. The fabrics made from them can be 100% microfiber or in blends with wool, cotton or viscose.

Toray was the first company in the world to introduce microfibers, followed by others



### Properties and uses of microfibers

Microfiber is used to make mats, knits, and weaves for apparel, upholstery, industrial filters, and cleaning products. The shape, size, and combinations of synthetic fibers are selected as per their usage.

- The water-absorbing quality of microfiber makes them best suitable for athletic wear. Its wicking property keeps the moisture away from the wearer's body; making the body cool and dry.
- Microfiber can hold up to seven times its own weight of water which makes it suitable in soaking up. It can also pick up bacteria from dirty surfaces. This property of microfiber makes it best useful in cleaning products, like cloths and mops. During the manufacturing process, the fibers are split which makes them effective in picking up and trapping dirt and bacteria. The microfiber is non-abrasive, hence does not damage any surfaces.

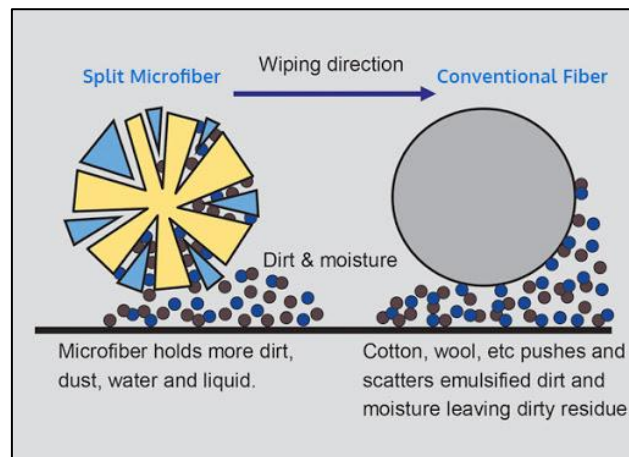


Fig 1.1 Cleaning efficiency of Microfiber vs Conventional fiber

- These fibers have good elastic property that makes the clothing comfortable.
- They are also strong and durable as compared to other fabrics of similar weight. They can thus be used to make materials for jackets or skirts,
- These fibers are used as substitute of suede leather.
- Microfibers are lightweight, resist wrinkling, have a luxurious drape on the body, retain shape, and resist pilling.
- Fabrics made of microfibers show lower heat conductance and therefore higher thermal insulation properties.
- Microfiber fibers exhibit a warmer feeling than conventional fabrics.

To be continued...

Wishing you a great week ahead!

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