

# **CLASSIFICATION OF FIBRES**

# INTRODUCTION

History of fibres is as old as human civilization. Traces of natural fibres have been located to ancient civilizations all over the globe. For many thousand years, the usage of fibre was limited by natural fibres such as flax, cotton, silk, wool and plant fibres for different applications.

Fibres can be divided into natural fibres and man-made or chemical fibres. Flax is considered to be the oldest and the most used natural fibre since ancient times.

## **“fiber” or “textile fiber”**

A unit of matter which is capable of being spun into a yarn or made into a fabric by bonding or by interlacing in a variety of methods including weaving, knitting, braiding, felting, twisting, or webbing, and which is the basic structural element of textile products.

It is a smallest textile component which is microscopic hair like substance that may be man made or natural. They have length at least hundred times to that of their diameter or width.

# Classification of Fibres

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graph TD; A[Classification of Fibres] --> B[ON THE BASIS OF ORIGIN]; A --> C[ON THE BASIS OF LENGTH]; A --> D[ON THE BASIS OF HEAT CONDUCTIVITY];
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**ON THE BASIS OF ORIGIN**

**ON THE BASIS OF LENGTH**

**ON THE BASIS OF HEAT  
CONDUCTIVITY**

# ON THE BASIS OF ORIGIN

## **1. Natural Fibres**

Vegetable Fibres

Animal Fibres

Mineral Fibres

## **2. Man Made fibres**

Regenerated fibres

Non-Cellulosic Polymer Fibres(Synthetic Fibres)

Metallic fibres

Mineral fibres

Rubber fibres

# ON THE BASIS OF LENGTH

## 1. Filaments

Monofilament Yarns

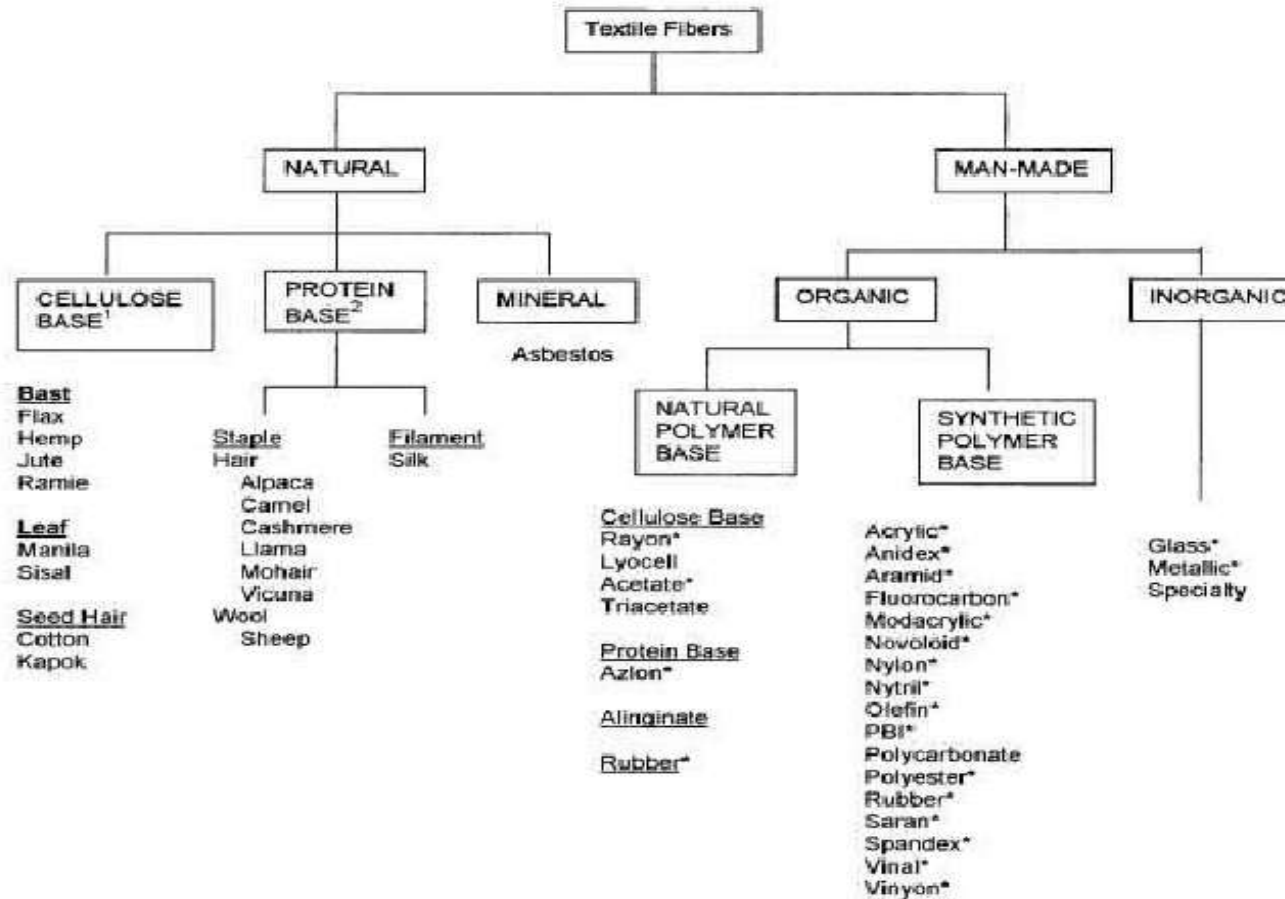
Multifilament Yarns

## 2. Staple Fibres

# ON THE BASIS OF HEAT CONDUCTIVITY

- 1. Thermoplastic fibres**
- 2. Non-Thermoplastic fibres**

# General Classification of Textile Fibers



# PROPERTIES OF FIBRES

- 1. Length and Diameter of the fibre**
- 2. Strength**
- 3. Elasticity**
- 4. Uniform Dimensions**
- 5. Spinning Quality**