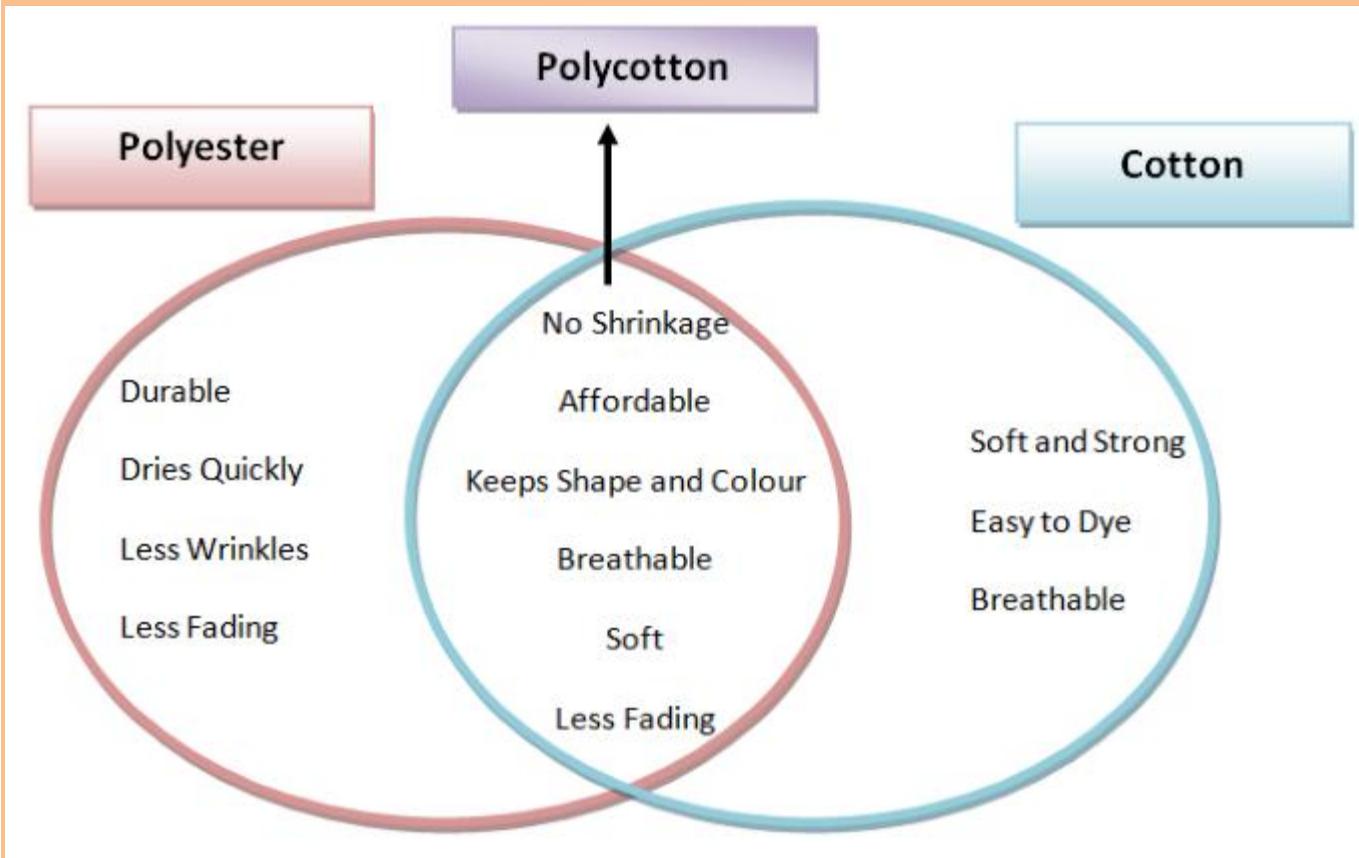


## Polyester



Polyester fibre does not get wrinkled easily. Hence, a fabric made from this fibre is easy to wash and does not need to be ironed - which makes it suitable for dress material.

Polyester is made up of two words - 'poly' which means many, and 'ester' which is a chemical.

**Esters** are chemicals which give fruits their smell.

**Name some types of Polyester fibres.**

Some popular polyester fibres are:

- Terylene (often known by brand name Dacron) which can be drawn into a very fine fibre and can be woven like any other yarn.
- Polyethylene terephthalate (P.E.T.) is used for making wires, films, bottles, utensils and other products.

**What are blended fibres? Give some examples.**

Blended fibres are formed by mixing natural and synthetic fibres. Polyester is often used in blended fibres. **For Example,**

- Polywool is made by mixing polyester and wool.

- Polycot is made by mixing polyester and cotton.
- Terrycot is made by mixing Terylene and cotton.

## Uses of Polyester

Since polyester is strong, wrinkle-resistant and water-resistant, it has several uses. It can be used to:

- Make a variety of textiles (including sarees, curtains, dress materials etc.) and can be blended with natural fibres (like cotton and wool)
- Make films, magnetic recording tapes, etc (as Mylar)
- Make sails of sailboats
- Make water hoses for firefighting purposes

## Acrylic

Acrylic is a strong, lightweight and warm synthetic fibre that resembles wool. It is available in a number of colours and is more durable and affordable than natural wool.

Acrylic fibre, fabric, plastic or paint are all made from acrylic acid. The word '**acrylic**' means '**containing acryl (or acrolein)**'. Acrolein is the sharp and bitter liquid in onions and has its roots in two Latin words - 'acer' which means 'sharp', and 'olere' which means 'to smell'.

### Why storage of acrylic clothes is easier than woollen clothes?

Woollen clothes need naphthalene balls to protect them from attack by insects. Acrylic is synthetic wool and is hence, resistant to the action of moths and insects.

## Uses of Acrylic Fibre

Acrylic can mimic wool as well as cotton at times and is hypoallergenic in nature. It means that people who have sensitive skin can wear it easily. Some acrylic fibres are very resilient – more than other natural or synthetic fibres. It can be used to:

- Make woollen clothes like hats, scarves, gloves, sweaters, blankets, and other home-furnishing fabrics.
- Make fake fur used for making toys and fur accessories.
- Make garments for babies (as the fabric is machine-washable).

## Characteristics of Synthetic Fibres

### What are synthetic fibres made up of?

All the synthetic fibres are manufactured by processing raw materials of petroleum origin in a number of ways. **The raw materials of petroleum origin are called Petrochemicals.**



#### Advantages of Using Synthetic Fibres

- Color-resistant
- Do not bleed color when washed
- Do not shrink when washed
- Easily available
- Easy to maintain
- Easy to wash and dry
- Less Expensive
- More Elastic
- Resistant to moth attacks
- Stronger
- Tough and Durable

#### Disadvantages of Synthetic Fibres

- Cannot absorb Moisture (hence, not good for summers when we sweat more)
- Catch fire easily (and hence, should not be worn when we are near fire)
- Difficult to iron (as they can melt because of heat)

### Why should we not wear synthetic clothes in the kitchen?

Synthetic fibres melt on heating. If the clothes catch fire, the fabric made up of synthetic fibres will melt and stick to one's body. Hence, it is recommended that one should not wear synthetic clothes while working in the kitchen or laboratory.

**Next Part : Plastics**