

Chapter 13

Lesson 3

Physical and functional characteristic of fiber

The **physical properties** are the fiber's size, strength, searchability, capability of absorbing moisture etc. The **functional properties** are the fiber's convenient side which means the usefulness of that fiber in practical life.

Physical and functional properties of cotton fiber

1. The brightness of cotton fiber is low.
2. The cotton fiber is not stretchable.
3. The fiber is strong enough and become stronger in wet condition.
4. Temperature can be transmitted through cotton fiber and can absorb moisture well.
5. The cotton fabric is being used to make casual dress as well as formal dresses, jersey, curtain, table cloth etc.



Image 1: Use of cotton fabric for curtain and pillow cover

Physical and functional properties of flax fiber

1. Linen fabric is made from this fiber which is bright
2. The fiber is strong and becomes stronger when gets wet
3. The temperature can pass easily through this fiber
4. The fiber can be used to produce the cloth to wipe the table, towels etc.



Image 2: Towel made of flax fiber

Physical and functional properties of silk fiber

1. Silk fiber is the longest and brightest among the natural fibers.
2. Silk is a very soft and strong fiber.
3. The fiber is used to make the luxurious silk clothing because of its own brightness.



Image 3: Bright silk fabric

Physical and functional properties of fur fiber

1. Fur is an animal fiber.
2. Fur or hair from the different hairy animal's body is used to make warm clothes.
3. The fiber has got very good water absorption power.
4. The fiber changes its shape when it gets wet
5. It is being used to make warm clothes such as muffler, sweater, shawl etc.



Image 4: Warm clothes

Physical and functional properties of artificial fiber

1. The length of artificial fiber is manageable as it is man-made.
2. Its brightness can be enhanced or reduced.
3. Rayon, nylon, polyester etc. are the examples of this fiber.
4. The main sources of nylon are coal, air, water etc.

5. The fiber is long, strong, flexible and long lasting.
6. Curtain, carpet, mosquito net, bed sheet etc. are made of this fiber.



Image 4: Carpet and mosquito net from the artificial fiber

Tasks

1. Find out the answer of MCQs (Exercise)
2. Solve Exercise CQ

Hints:

- a. Read lesson 2 again and write the answer.
- b. Write the definition of artificial fiber in 1st paragraph.
Explain it in 2nd paragraph
- c. Picture a shows the cotton fabric. Write its properties.
- d. Picture b shows the flax fabric. Write the similarities of cotton and flax fiber. Follow the today's lecture.