



Topic: Causes of Yellowing on the textile and its Remedies.

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Content:

What is Yellowing?

Yellowing is the discoloration of textiles, developed during production, processing, usage & storage. It is one of the most common quality problems in natural and synthetic fibers.

Why white textile goods turn yellow?

In general a substance appears to white when it reflects red, blue and green light.

On usage due to fiber ageing and environmental factors the substance absorbs blue light and it reflects red and green light.

By theory of light a substance appears to be white when it reflects red, blue and green light. If it absorbs blue light then it reflects red and green light.

The combination of red and green gives yellow light. That's why the white goods shows Yellowing.



Causes of Yellowing:

1. Fiber ageing

Fiber ageing is one of the primary causes of yellowing.

The environmental impact on the textile fibers leads to fiber ageing.

The continuous exposure of sunlight leads to photo degradation of the textile fibers in particular natural fibers like cotton, viscose, linen etc.

In the photo degradation process there is breakage of bond occurs within the polymeric structure of the fibers and leads to strength and color loss etc.

Usually natural fibers like cotton by its origin it is slight yellowish in color. On further photo oxidation it yellowness increase.

Manmade fibers like nylon, spandex and polyester are more prone to yellowing.

Remedies for fiber ageing:

We can avoid the fiber ageing by proper storing of fibers.

Avoid exposure to direct sunlight.



2. Environmental pollutants:

Yellowing issues due to the atmospheric pollutants play a vital role. The various environmental pollutants are ozone, NOX, SOX etc.

Remedies:

Avoid the exposure of environmental pollutants.

3. Transferred contaminants:

One of the main causes of yellowing of white and pastel shades is phenols. BHT (Butyl Hydroxyl Toluene) is an antioxidant used in polythene and polypropylene bags to prevent ageing of olefin. It is used in shoulder pads and interlining materials.

Remedies:

Use Polyethylene cover which doesn't content Anti-oxidant contaminants.

“Happy Week ahead”