

## Different Types of Textile Testing Methods



Testing can be defined as the **methods or protocols** adopted to verify/determine the properties of a product. It can be **divided primarily into two types: regular process testing and quality assurance testing**. Routine testing helps to **streamline the daily process**. Quality assurance testing helps the **process or product in the long run** to establish credibility. Testing can also be defined as the procedures adopted to determine a **product's suitability and quality**.

Textile testing is a vital basic tool during the processing of a textile raw material into the product. It also helps the distributors and consumer to **determine the end product's quality**. There are different types of testing process are done in textile and apparel industry.

## Quality Control Testing

### A. Mechanical

1. Tensile Strength and Elongation
2. Breaking Strength
3. Bursting Strength of Paper
4. Tear Strength
5. Elmendorff Tear Strength
6. Air permeability of Paper
7. Pilling Test
8. Dry and Wet Rubbing (Crock Meter)
9. Ether Soluble Matter
10. Water Absorbency
11. Lead and its compounds
12. Scouring loss
13. Flammability

### B. Physical

1. GSM
2. Fiber Diameter
3. Ends per inch
4. Linear Density

### C. Chemical

1. PCP
2. Blend composition
3. Identification of Fiber
4. Identification of Dyes
5. Solvent Extractable matter
6. Chloride Content
7. Sulphate Content
8. pH value of water extract
9. Moisture Content

10. Shrinkage to Water
11. Colour Fastness Tests

## Textile and Apparel Product for Testing

1. HDPE bags/Jute Bags
2. Crepe Paper
3. Filter Paper
4. Writing/Printing paper
5. Coated paper
6. Corrugated Box
7. Carpet
8. Filament Yarn
9. Fabric
10. Congo red Dye
11. Vinyl Coated Fabric
12. Socks
13. Jersey
14. Various Leather Products

## List of Instruments

1. Universal Testing Machine
2. Xenon Arc Weatherometer
3. UV weatherometer
4. Flammability Chambers
5. Crock meter
6. Burst Strength Test Apparatus
7. Air permeability apparatus
8. Elmendorff Tear Tester
9. Pilling Tester
10. Crease Recovery Tester

## **Standard Methods Adopted**

1. American Society of Testing & Materials (ASTM)
2. American Association of Textile Chemists and Colorists (AATCC)
3. International Organization for Standardization (ISO)
4. European Norms (EN)
5. British Standards (BS)
6. British Standards for European Nations (BSEN)
7. Deutsches Institut für Normung (DIN)
8. Japanese Industrial Standards (JIS)
9. Bureau of Indian Standards (BIS)

Dr. Mainul Moir