

## FIBER CHARACTERISTICS

The types of fibers that are used to make yarns and the ways the fibers are made into yarns affect the appearance and performance characteristics of yarns. Examples of appearance characteristics are yarn color, texture, diameter and complexity. Yarn complexity refers to the number and types of strands that are twisted together to make yarn. Performance characteristics of yarns refer to such qualities as strength, durability, and flexibility. Appearance and performance characteristics are important because they affect the fabrics that are made from the yarns.

The fiber content of a yarn will affect both its appearance and performance. Different fibers have different colors in their natural or undyed state. The yarns may be left in the natural color of the fiber or fibers from which they are made. If the yarns are dyed, the fiber contents affect how the dye is accepted. This affects the final color of the yarn and how well the color lasts.

Natural and manufactured fibers are lustrous and smooth, and yarns made of these fibers also have those characteristics. Some wool fibers are coarse or thick, and those characteristics are present in yarns made from those fibers.

The number of strands that are twisted together to make a yarn and how loosely or tightly the strands are twisted together affect the texture and diameter of yarns. For example, a loosely twisted yarn with many strands will have a thick diameter and may look rougher than a tightly twisted yarn made from fewer strands.

The fiber strength and the way fibers are twisted together contribute to the strength, durability, and flexibility of yarns. Flexible fibers help to make flexible yarns. Tightly twisted fibers help to make stronger and more durable yarn than loosely twisted fibers. Loosely twisted fibers contribute to the flexibility of yarns. Some flexibility may be lost, however, when fibers are twisted tightly.

Yarns may be made of only one fiber type, such as cotton, wool, or nylon. Yarns may also be made of two or more fiber types blended together. Common fiber blends are polyester and cotton, ramie and cotton, wool and nylon.

Triacetate is made by only one manufacturer under the trade name Arnel. It launders readily, and can be heat set. Since triacetate absorbs moisture, it dries quickly but feels clammy next to the skin.