

Sizing Tencel® Yarn – General

Tencel® yarn is known for its smooth and silky texture, and it is not typically considered "hairy" like some other types of yarn. Its fibers are finely woven, creating a soft and lustrous appearance. This makes Tencel® yarn popular for creating garments and textiles with a luxurious drape and beautiful sheen.

Tencel® yarn, also known as lyocell yarn, possesses several favorable physical properties:

- 1. Softness:** Tencel® yarn is known for its soft and smooth texture, making it comfortable to wear against the skin.
- 2. Strength:** Tencel® yarn is strong and durable, allowing for long-lasting, high-quality textile products.
- 3. Breathability:** Tencel® yarn has excellent moisture-wicking properties and is highly breathable, making it ideal for clothing and textiles, particularly in warm or humid conditions.
- 4. Drape:** Tencel® yarn has a beautiful drape and fluidity, which lends itself well to creating garments with elegant movement.
- 5. Absorbency:** Tencel® yarn is highly absorbent, capable of quickly absorbing and releasing moisture, contributing to its comfort and versatility in different climates.

These physical properties make Tencel® yarn a popular choice for a wide range of textile applications, including clothing, linens, and other home textiles.

Polyvinyl Alcohol: A common sizing agent used for Tencel® yarn is polyvinyl alcohol (PVA). PVA is a water-soluble polymer often used as a sizing agent in textile processing. It helps to improve the weaving efficiency and provides better abrasion resistance for the yarn. Additionally, it can easily be removed during subsequent processing steps, leaving behind a clean and smooth surface on the Tencel® yarn.

Carboxymethyl Cellulose: Low-viscosity carboxymethyl cellulose (CMC) can also be a suitable sizing agent for Tencel® yarn. CMC is a water-soluble cellulose

derivative commonly used in textile sizing processes. It helps improve the strength, smoothness, and abrasion resistance of the yarn, contributing to better weaving performance. Additionally, CMC is known for its ease of removal during subsequent processing, leaving the Tencel® yarn with desirable properties for further finishing and use in textile products.

Polyester Polymer: It is possible to use polyester polymer as a sizing agent for Tencel® yarn. Polyester polymer is known for its versatile and durable properties, and it can provide strength, lubrication, and abrasion resistance to the yarn. However, it's important to note that the choice of sizing agent can affect the hand feel, drape, and overall performance of the Tencel® yarn. Hence, it's essential to consider the specific requirements of the end product and the processing conditions to determine the most suitable sizing agent.

Starch: it is possible to size Tencel® yarn with starch to add stiffness and shape retention to the yarn. Some common types of starch used for sizing yarn include cornstarch, potato starch, and rice starch. These starches can help improve the weaving by reducing breakages and improving the overall appearance of the fabric. However, it is essential to follow specific guidelines and perform proper testing to ensure that the starch sizing process does not negatively affect the quality of the yarn or fabric.