

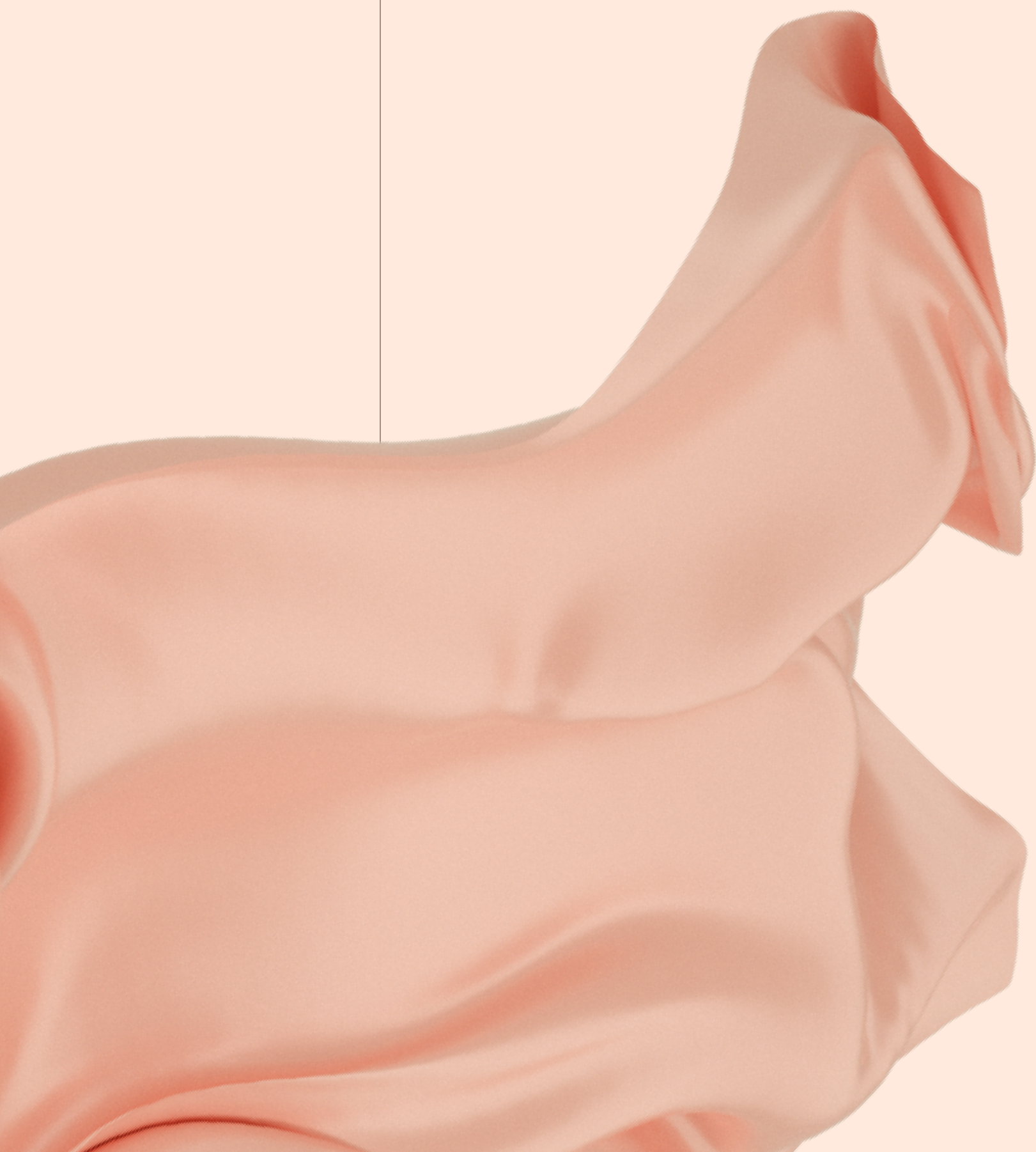
Polyester

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What is Polyester?

Polyester is a synthetic fabric that's usually derived from petroleum. This fabric is one of the world's most popular textiles, and it is used in thousands of different consumer and industrial applications. Polyester is a non-biodegradable fabric which can take up to 20-200 years to decompose.



How Polyester is made?

1. Creating a monomer

The process of creating polyester fiber begins with reacting ethylene glycol with dimethyl terephthalate at high heat. This reaction results in a monomer.

2. Creating a Polymer

The monomer is then reacted with dimethyl terephthalate again to create polymer.

3. Extruding

This molten polyester polymer is extruded from the reaction chamber in long strips, and these strips are allowed to cool and dry, and then they are broken apart into small pieces.



How Polyester is made?

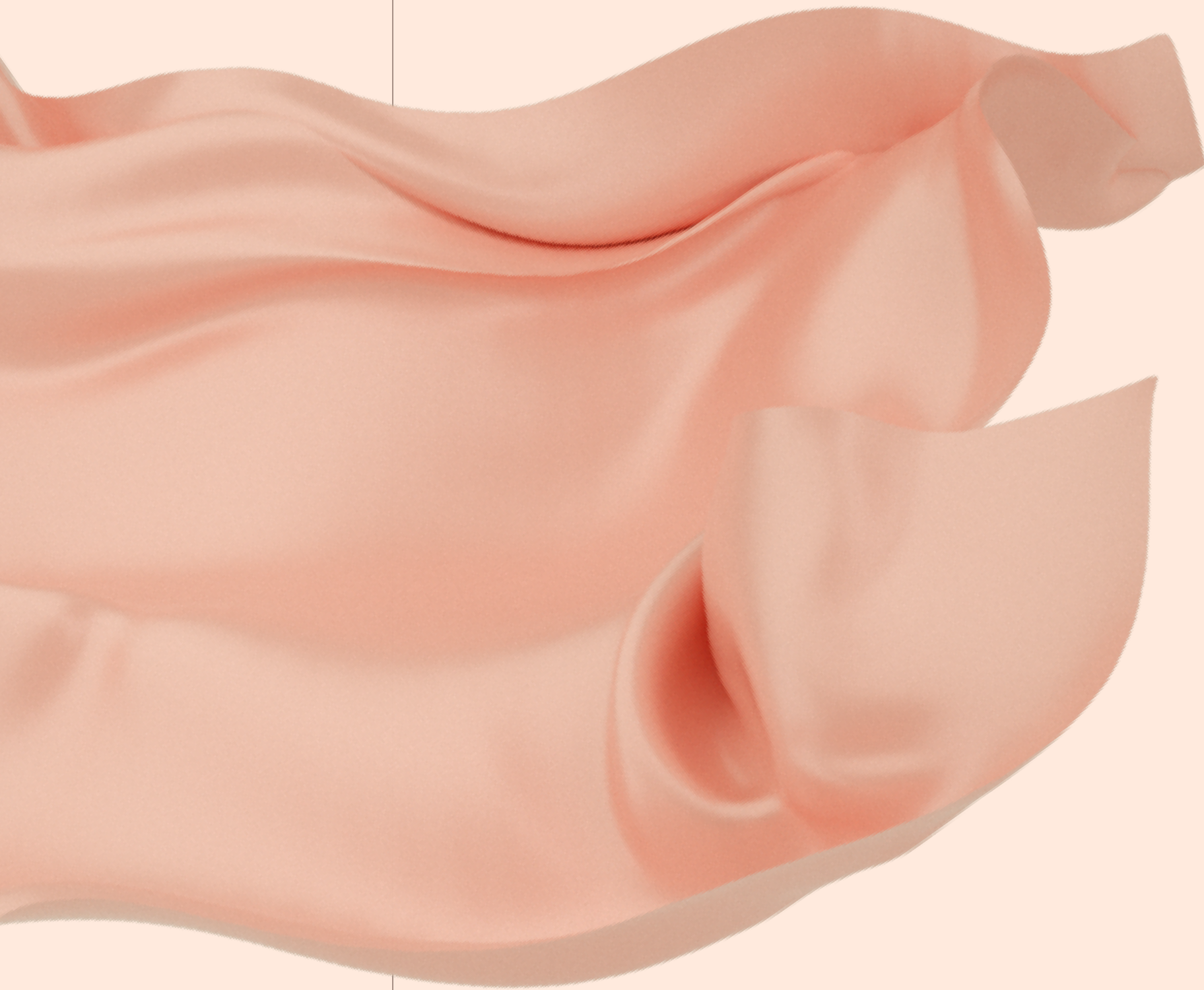
4. Spinning

The resulting chips are then melted again to create a honey-like substance, which is extruded through a spinneret to create fibers.

5. Finishing

The resulting polyester filaments may be cut or reacted with various chemicals to achieve the correct end result.





Characteristics

- Strong
- Crisp, soft hand
- Resistant to stretching and shrinkage
- Washable or dry-cleanable
- Quick drying
- Resilient, wrinkle resistant, excellent pleat retention (if heat set)
- Abrasion resistant
- Resistant to most chemicals
- Because of its low absorbency, stain removal can be a problem
- Static and pilling problems

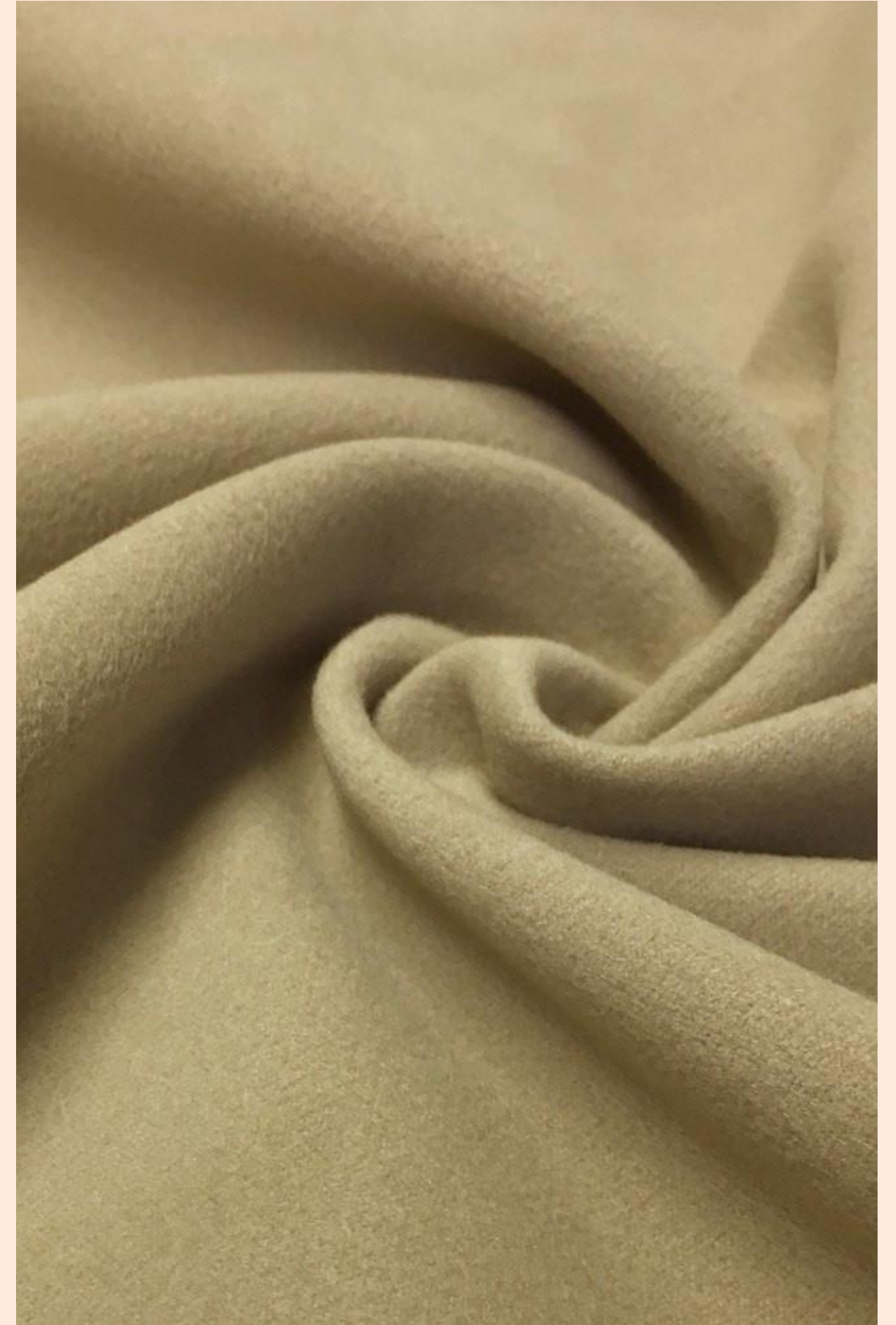
Blends

Polyester and cotton is probably the most famous and popular blend. The polyester helps the fabric retain its shape and resist stains and wrinkles. The cotton makes the fabric more absorbent and comfortable.



Blends

Polyester is combined with wool to give it wrinkle-resistance and shape retention in all kinds of weather. Since polyester is stronger than wool, it increases the durability and life of the fabric. The wool contributes good draping characteristics and elasticity.



Blends

Polyester and rayon is another popular blend fabric. Here again the polyester makes the fabric more resilient and durable, and helps it keep its shape. The rayon adds a different texture, has a good hand, is good for draping, and is absorbent.



Blends

Polyester and nylon produce a strong fabric because of nylon's strength and abrasion resistance and polyester's wrinkle-free properties. This combination produces a yarn that is strong, durable, stable, easy to launder, and resistant to mildew and insects. Problems with this blend, however, are that pilling may occur, and it does not have a very good hand.

Furthermore, since neither nylon nor polyester is very absorbent, the fabric may feel wet and clammy in warm or humid weather.



A crumpled piece of light pink paper is centered on a white background. The paper is wrinkled and folded, creating a textured, three-dimensional appearance. Overlaid on the paper is the text "END OF THE SLIDE" in a bold, black, sans-serif font. Below this, the words "Thank You" are written in a black, elegant cursive script.

END OF THE SLIDE

Thank You