



# REGULATORY

**UNE-EN ISO 13934-1 &  
UNE-EN ISO 13934-2  
TENSILE STRENGTH IN ACTIVEWEAR  
WHY STRENGTH VALUES MATTER**

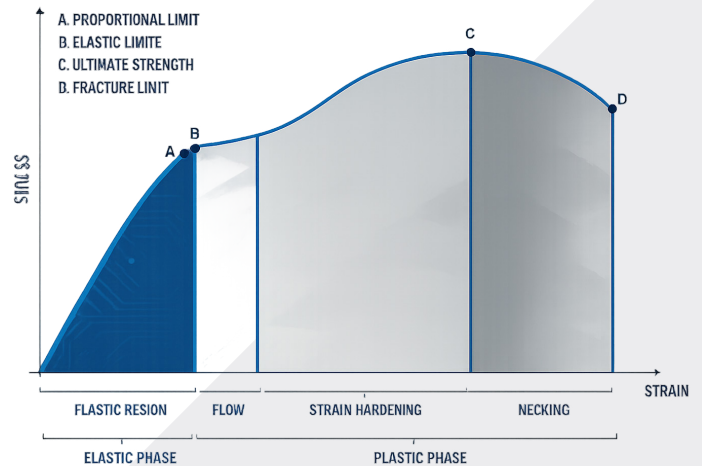
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**IBO**<sup>®</sup>  
TEXTILES PROTECTING LIVES

## TENSILE STRENGTH TESTING (EN ISO 13934)

Tensile strength testing measures how much force a fabric can withstand when it is pulled before it breaks. Under EN ISO 13934, fabric specimens are tested under controlled laboratory conditions using tensile testing equipment. This allows manufacturers, brands, and garment makers to compare strength values objectively across different materials, constructions, and production batches.

In activewear, especially woven and stretch-woven fabrics, tensile strength is not only a technical number. It is a key indicator of how the material will perform during movement, repeated stretching, body tension, and everyday wear. A fabric with appropriate tensile strength helps the garment maintain its structure, resist rupture, and support long-term performance.

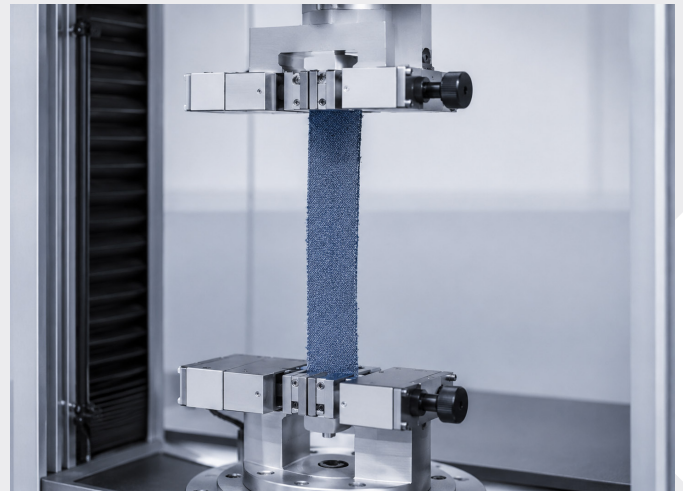


## STRIP METHOD (EN ISO 13934-1)

The strip method determines the maximum force and elongation at maximum force of a fabric specimen. This means the test not only measures how much force the textile can resist before breaking, but also how much it can extend before reaching that breaking point.

For activewear, this combination of strength and elongation is especially important. Garments used for training, outdoor activities, cycling, running, or functional sportswear must allow freedom of movement while still maintaining mechanical resistance. If a fabric stretches but lacks strength, it may deform or break.

If it is strong but too rigid, it may limit comfort and mobility.



## GRAB METHOD (EN ISO 13934-2)

The grab method measures the maximum force required to break a fabric when only part of the specimen width is gripped. This type of test can be useful to understand how a fabric behaves when force is concentrated in a specific area rather than distributed across the full width.

In activewear, localized stress often appears around seams, waistbands, knees, elbows, pockets, zippers, cuffs, and high-movement zones. These are the areas where garments are repeatedly pulled, stretched, compressed, and exposed to body movement. Strong fabric performance in these zones helps reduce the risk of tearing, distortion, and premature product failure.





## WHY STRENGTH VALUES MATTER IN ACTIVEWEAR

Activewear is designed to move with the body. During use, fabrics are exposed to repeated tension, stretching, friction, sweat, washing, and mechanical stress. Tensile strength values help evaluate whether a material can resist these forces while maintaining its original structure and appearance. A high-performance activewear fabric must offer the right balance between strength, elasticity, recovery, softness, and weight. Higher strength values can improve garment durability, but performance should never be measured by strength alone. The ideal textile must be strong enough to resist rupture while remaining flexible, comfortable, and suitable for the intended sport or activity.

## DURABILITY, FIT AND PRODUCT LIFETIME

Tensile strength has a direct impact on garment lifetime. If strength values are too low, the fabric may tear under tension, lose its shape, or fail in critical areas after repeated use. This can affect not only the visual appearance of the garment, but also its fit, comfort, and perceived quality. For brands, strength values are also essential for quality control. They help define minimum fabric requirements, compare suppliers, validate production consistency, and reduce the risk of returns or complaints. In a market where activewear is expected to combine performance, comfort, and durability, objective testing becomes a key part of product development.



## PERFORMANCE THAT GOES BEYOND APPEARANCE

In simple terms, EN ISO 13934 helps prove that a fabric is not only visually suitable for activewear, but mechanically prepared for real use. The test provides measurable data that supports material selection, product engineering, and long-term quality assurance.

For IBQ Textiles, tensile strength is part of a broader commitment to technical performance. By developing fabrics that combine resistance, comfort, elasticity, and durability, IBQ supports activewear brands in creating garments designed to move, perform, and last.

