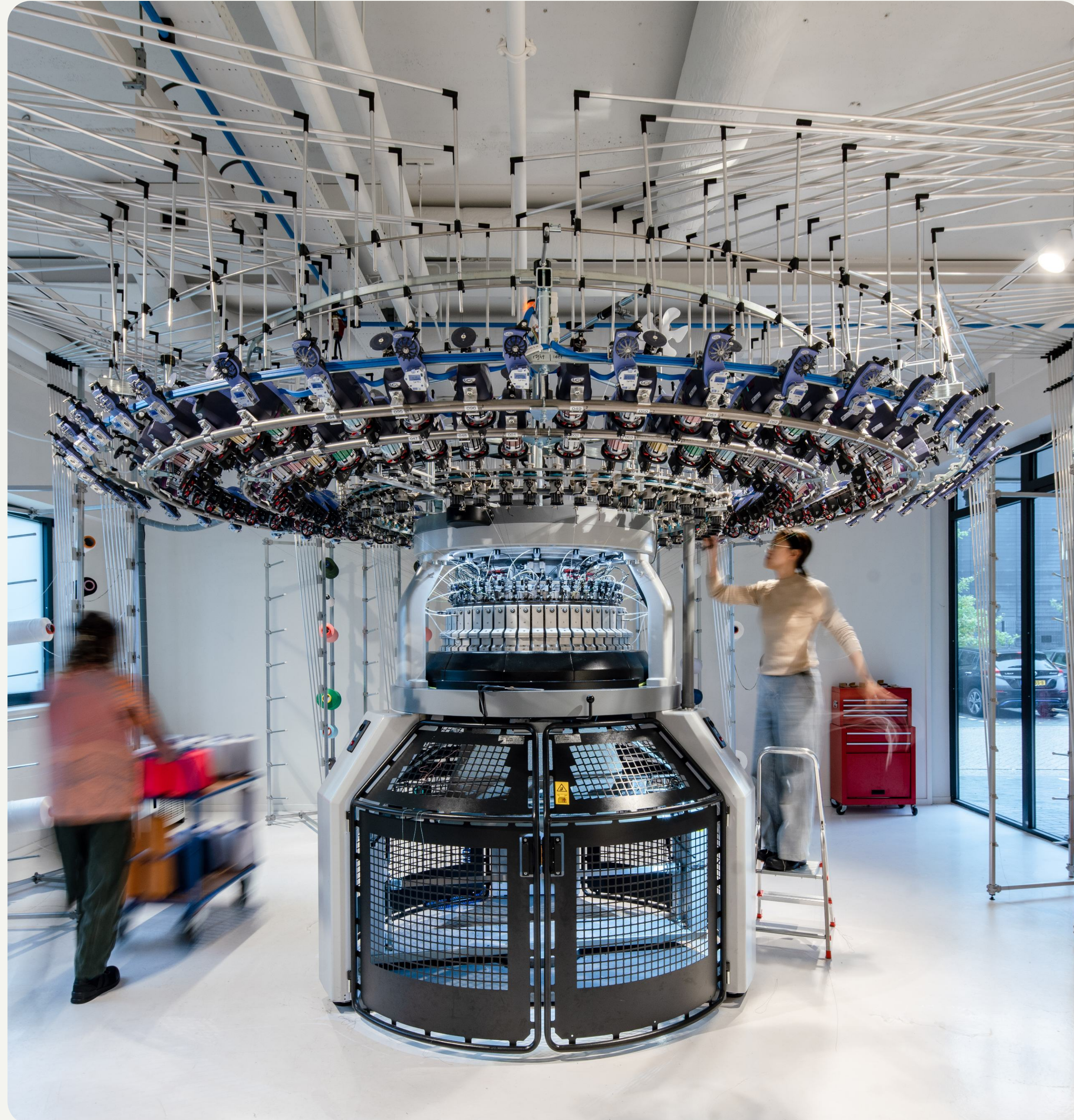


UPHOLSTERY GUIDE

BYBORRE®

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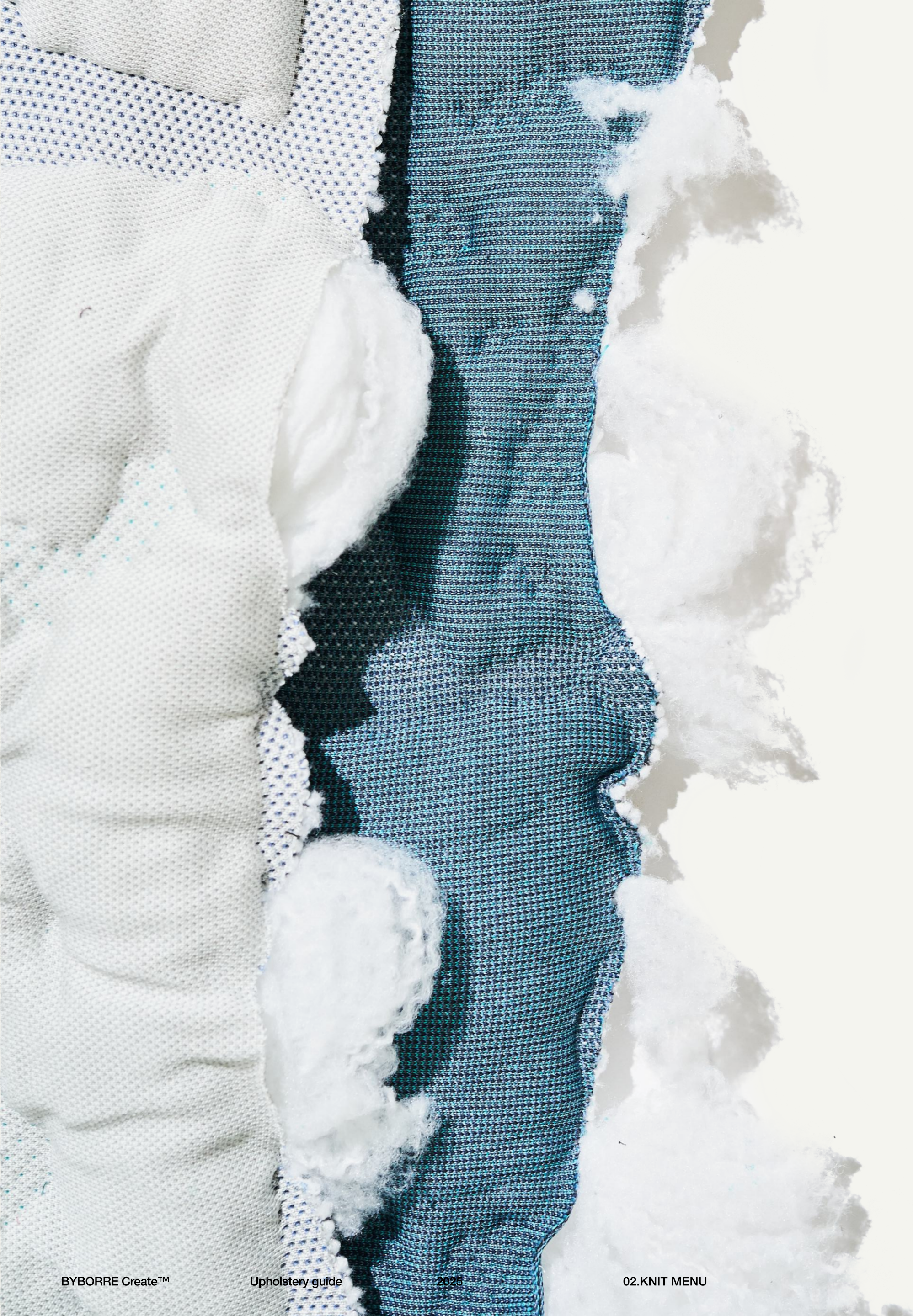
Upholstering with BYBORRE knitted textiles offers a unique opportunity to work with materials that are flexible, expressive, and engineered for performance.

Unlike traditional woven fabrics, BYBORRE knits are designed to follow form — allowing them to wrap organically around curves, enhance acoustic properties, and add a distinct tactile dimension to spatial design. This guide has been developed to support designers, upholsterers, and fabricators in working confidently and effectively with BYBORRE materials.

There are three key considerations when working with knitted textiles for upholstery:

1. **Grainline alignment** is important to ensure the textile's natural direction is respected, helping to control stretch and maintain the intended shape.
2. **Ballpoint needles** are recommended to accommodate the looped structure of the knit and reduce the risk of fabric damage during stitching.
3. **Understanding the material's stretch characteristics** is essential for tensioning, shaping, and ensuring long-term performance in upholstered applications.

Knitted textiles offer both design freedom and technical advantage — and with a clear understanding of their properties, they can elevate the quality and expression of any upholstered piece.



02

KNIT MENU

3D KNIT

3D

3D structured double jersey with a fill layer. Structural unique knit. It’s available in wool and polyester.

Structure 2 Knit Layers + Fill layer
Weight range 425 - 900 GSM

Suggested use

- Upholstery
- Wall panels
- Seating
- Headboards

Wool Blend
43% Polyester Filling - 31%
Recycled Polyester - 19.5%
Wool - 6.5% Nylon

Weight range 550 - 750 GSM

Impact per kg of textile
Emissions 19.45 KgCO2eq
Water usage 7046 Liters
Energy usage 11.94 kWh

Recycled Polyester
70% Recycled Polyester
- 30% Polyester Filling

Weight range 550 - 900 GSM

Impact per kg of textile
Emissions 11.5 KgCO2eq
Water usage 4721 Liters
Energy usage 55.98 kWh



AO3

AO3

All over attached double jersey with fill layer and even structure. Durable knit with color contrast possibilities. It's available in wool and polyester.

Structure 2 Knit Layers + Fill layer
Weight range 500 - 800 GSM

Suggested use

- Upholstery
- Wall panels
- Seating
- Headboards

Wool Blend
49% Polyester Filling - 26%
Recycled Polyester - 18.75%
Wool - 6.25% Nylon

Weight range 550 - 750 GSM

Impact per kg of textile
Emissions 19.66 KgCO2eq
Water usage 7018 Liters
Energy usage 62.2 kWh

Recycled Polyester
74% Recycled Polyester - 26%
Polyester Filling

Weight range 550 - 700 GSM

Impact per kg of textile
Emissions 13.99 KgCO2eq
Water usage 15982 Liters
Energy usage 67.86 kWh



AO2

AO2

All over attached double jersey with even structure.
Lightweight knit with color contrast possibilities. It's available
in cotton, wool and polyester.

Structure 2 Knit Layers
Weight range 275 - 600 GSM

Suggested use
Interior Accessories

Merino Wool Blend
58% Recycled Polyester -
25.2% Merino Wool - 16.8%
Recycled Nylon

Weight range 350 - 550 GSM

Impact per kg of textile
Emissions 23.62 KgCO2eq
Water usage 7057 Liters
Energy usage 56.36 kWh

Recycled Polyester
100% Recycled Polyester

Weight range 400 - 600 GSM

Impact per kg of textile
Emissions 9.16 KgCO2eq
Water usage 4439 Liters
Energy usage 16.67 kWh

Cotton
100% Egyptian Bio-Cotton

Weight range 275 - 500 GSM

Impact per kg of textile
Emissions 16.43 KgCO2eq
Water usage 39569 Liters
Energy usage 81.5 kWh



03

GRAINLINES

GRAINLINE DIRECTION

The grainline in a knitted textile can be identified by the V-shaped stitches. Due to their V-shape the stitches simultaneously work as arrows which indicate the grainline direction running parallel to the edge of the textile. The easiest to detect the direction of the V-shape is by looking for stitches in contrasting yarn colours (see picture). In case of plain textile colours it can be helpful to use a magnifying glass.

At BYBORRE we prefer to cut as much as possible within the right grainline direction, especially during the sampling process. In production we allow placements on a 180 degree angle (against the grainline) to optimise consumption. For standart cutting purposes we don't suggest to cut on a 90 or 45 degree angle or the usage of random placements as the textile will start twisting and changing its drape. Only use unusual pattern placements with very specific reasoning where twisting and drape are a desired outcome.

The artwork of a textile can be either in or against grainline direction, depending on how the knitfile was designed.

04

NEEDLES

For consistent stitch quality and material protection, BYBORRE works primarily with **SCHMETZ sewing machine needles**, a trusted supplier known for precision and durability. Depending on the textile structure and product requirements, we select from a range of SCHMETZ needle types, all designed to support high-performance production with knitted materials.

Ballpoint needles are preferred when working exclusively with knits. Their rounded tips displace the textile loops rather than piercing them, reducing the risk of damage. The selection is based on textile weight and construction:

- **SES (Light Ballpoint):** Suitable for light to medium-weight knits
- **SUK (Medium Ballpoint):** Used for coarser knit textiles
- **SKF (Heavy Ballpoint):** Ideal for textiles with wide loops or high elastane content

When working with products that combine both woven and knitted materials, or where significant bias tape is applied, we opt for **universal needles** to ensure compatibility and consistent seam integrity.

For optimal results, we recommend **40/3 nylon or polyester thread**, matched to the selected needle type to maintain smooth stitch performance and textile resilience.



05

STRETCH

The direction of stretch is crucial when upholstering with knitted textiles because it directly affects the fabric's performance, durability, and appearance. Here's why:

1. Preventing Excessive Stretch and Distortion

- Knitted fabrics are stretchy, especially in one direction (usually across the width). If this stretch is not aligned or controlled properly, the fabric may:
 - Sag over time, particularly in high-use areas like chair seats or cushions.
 - Distort and lose its original shape, leading to an uneven or unattractive finish.

2. Maximizing Comfort

- Stretch can improve comfort if aligned correctly. For example:
 - Place the direction of greatest stretch where flexibility is most needed, such as across the width of a seat or backrest, so it adapts to the user's movement.

3. Ensuring Durability

- Misaligned stretch can cause the fabric to bear uneven stress, leading to premature wear, fraying, or seam failure.
- Aligning the stretch parallel or perpendicular to high-stress areas ensures the fabric maintains its integrity longer.

4. Achieving a Smooth Finish

- Properly aligning the stretch helps avoid puckering, wrinkles, or waves during application. For example:
 - Stretchier areas should be kept taut but not overextended.
 - A balanced application avoids excessive tension in one area while leaving slack in another.

5. Tailoring to the Application

- For upholstered items:
 - High-use furniture might require the stretch to run perpendicular to stress areas to limit overextension.
 - Decorative furniture might prioritize aesthetics, requiring the stretch direction to minimize visual distortions.



When determining the stretch of knitted textiles for upholstery, you generally don't need a large industrial machine; instead, you can use relatively simple tools and methods. Here's what you might use:

1. Stretch Tester or Textile Stretch Testing Machine

- These machines measure the fabric's stretch and recovery properties in a controlled way.
- Functionality: The machine applies a known force to the fabric and measures how much it stretches and returns to its original dimensions.
- Best For: Professionals who need precise data for high-performance or commercial upholstery applications.

2. Fabric Tensile Tester

- Purpose: Measures the tensile strength and elongation of the fabric.
- Use: Apply consistent pressure to stretch the fabric to assess how much it elongates under stress. Some models also test the fabric's recovery (elasticity).

3. Manual Stretch Testing

For simpler or small-scale upholstery projects, manual methods can work effectively:

- Ruler/Measuring Tape Method:
 - a. Mark a 10 cm (4 inch) section of the fabric.
 - b. Stretch the fabric as far as it will comfortably go without distorting, and measure the extended length.
 - c. Calculate the stretch percentage: $\text{Stretch percentage} = (\text{Original length} \times \text{Extended length} - \text{Original length}) \times 100$
 - Example: A 10 cm section that stretches to 15 cm has a 50% stretch.
- This method gives you a good idea of how the fabric behaves under tension.

4. Industrial Upholstery Equipment

If you're working on large-scale upholstery with knitted textiles:

- Cutting Table with Tension Bars: Some cutting and upholstery tables come with tension bars or clamps to hold and stretch fabric during preparation, allowing you to test stretch under realistic conditions.
- Fabric Stretch Frame: Used for pre-stretching fabric before upholstering to ensure even tension and alignment.



06

BEST PRACTICES

Upholstering with BYBORRE knits offers both creative freedom and technical advantage, but to ensure optimal results, a few key practices are essential.

Grainline awareness is critical: knitted fabrics behave differently from woven textiles and require careful attention to orientation. The stretch in BYBORRE knits typically runs perpendicular to the selvage edge. Identifying the grainline correctly, usually indicated by V-shaped stitches — helps maintain form, control drape, and avoid twisting during application.

Stretch and recovery should always be tested prior to production. Understanding the textile's elasticity will guide placement and shaping, especially when tensioned across curves or surfaces. In high-use furniture, minimizing overextension by orienting stretch perpendicular to stress lines is advised. In decorative pieces, alignment may prioritize visual harmony.

Stabilizing techniques, such as interlining or backing, may be necessary for additional structure or to support complex applications. These measures help maintain shape over time, particularly in pieces subject to daily wear or high tension.

Ultimately, success lies in treating BYBORRE knit textiles as a design material in their own right, not simply a substitute for traditional woven fabric. When approached with care and intention, their responsiveness, depth, and structure offer new design possibilities that perform as beautifully as they appear.



The content of this document is to act as a guide and we as BYBORRE can not be held response for any damages caused by miss interpreting or miss handling of the fabrics. Our recommendations in the document are general recommendations and we always advise you handle the textiles with the utmost care and run your own construction test(s) according to the products you will be making.