bAwear® SCORE

USER GUIDE

2023

USER MANUAL

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1.0 GENERAL INFORMATION & GETTING STARTED

A. GENERAL INFORMATION & GETTING STARTED

Use the expert input file on a **Microsoft Excel** application.

The use of **Google Sheets** is not recommended.

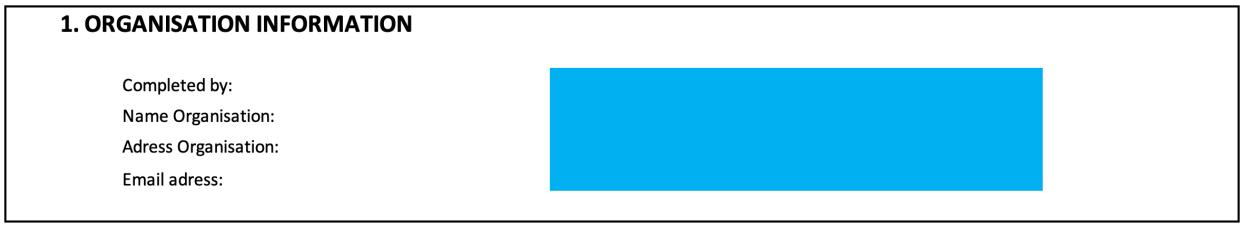
1.1 Introduction

- This bAwear expert form gives you the option to provide primary data from the supply chain. If you do not have access to primary data, bAwear will use secondary data. This secondary data is selected from literature sources by bAwear. These data may not be representative of your product and the results of the impact calculation may deviate from the actual impact. If you provide primary data, you are responsible for the accuracy of the data!
- Wherever you provide data, please give them **per kilogram of product**. Example: If you provide data on yarn composition, you complete the data per kg of that specific yarn!
- If available, please insert an image of the product or a link to the product on your website.
- On the **right side of each section** there is space provided for additional remarks and comments. If the data you provide does not appear in one of the drop downs or you would like to mention extra information for bAwear, please make use of the space highlighted in this color.
- All options are accessible on the bottom toolbar of your file. **It is not important to fill in each section**. This depends on your requirements and the nature of the product being assessed.

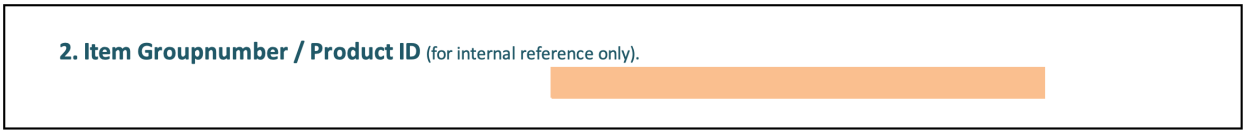
- In the bAwear tool, a full stop (.) stands for a decimal place and a comma, (,) is not used. For instance: 2 Euro 99 cents would be 2.99.
- The input file uses 4 colors to make it easy to navigate and fill details:
  - Mandatory: You cannot proceed without filling these cells
  - Field with dropdown menu
  - Optional: You can leave these cells blank
  - Do not fill or change!

1.2 Data Entry

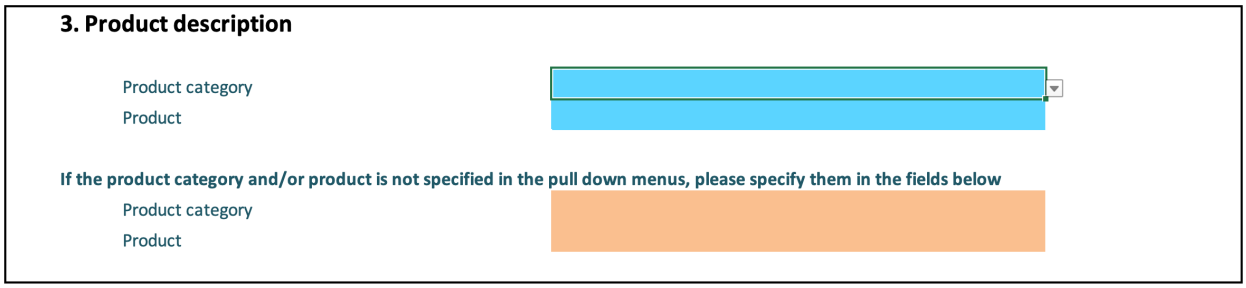
Step 1: Ensure accurate entry of these details. It is preferrable to provide your full name, include your country in the location field and use your work email address.



Step 2: Enter product code/ article number to make it easier to trace each product if there are multiple products. It could be a combination of words and numbers. There is **no word/alphabet limit**.



Step 3: Pick from the drop-down menu.



Child: Between the age group of 2 to 12 years

Baby: Between the age group of 0 to 2 years

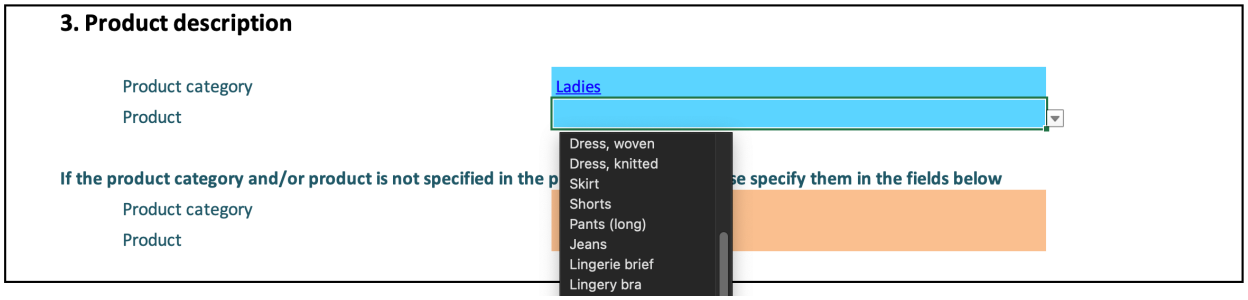
Men and Women: This includes teens and grown-ups falling in the age bracket of 13 and above.

Yarns & fabrics: In instances where there is a standalone textile or individual yarn for which the environmental impact needs to be assessed pick this category. This may not have been fashioned into a specific product for either men or women.

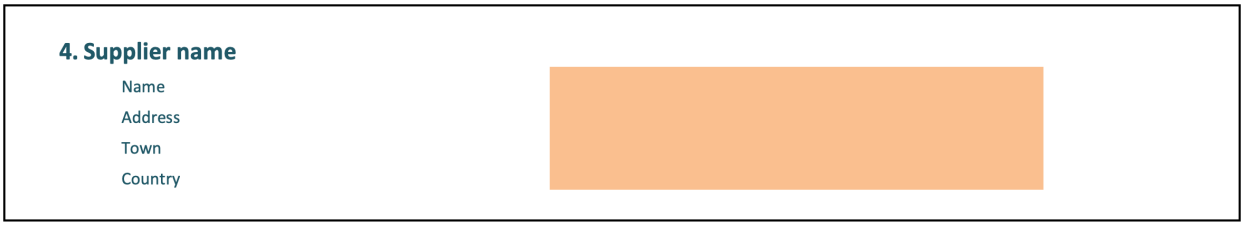
Technical fabrics: Specialized fabrics designed with advanced features and properties to cater to specific performance or functional requirements.

Miscellaneous: When you pick this option, give a short description in the additional comments section.

Based on the category chosen, a list of products shown in the drop-down menu. Pick one. If your product does not appear in the drop-down, scroll down to the bottom of the options list. Pick "" and give a description of your product in the field below.



Step 4: Provide additional information as needed.



Step 5: Make sure you enter the total weight of the product in **grams.**

1.3 Help

For FAQ's check:
https://www.notion.so/e00a0124f5f344adbff4bd4e9776bf37?v=7f95f8c789e8443d8b8404c85d9c2750

For further queries contact: **support@bawear.eu**

1.4 Icons in the manual

	**Not** recommended
	**Good to know**: Tricks
	**Approved** action
	Action to be avoided

1.5 Acronyms and Abbreviations

kWh	Kilo watt Hour	Unit used for electricity
Kg	Kilograms	Unit used for weight
MJ	Milli Joules	Unit of energy

2.0 FIBRES AND YARNS

B. FIBRES AND YARNS

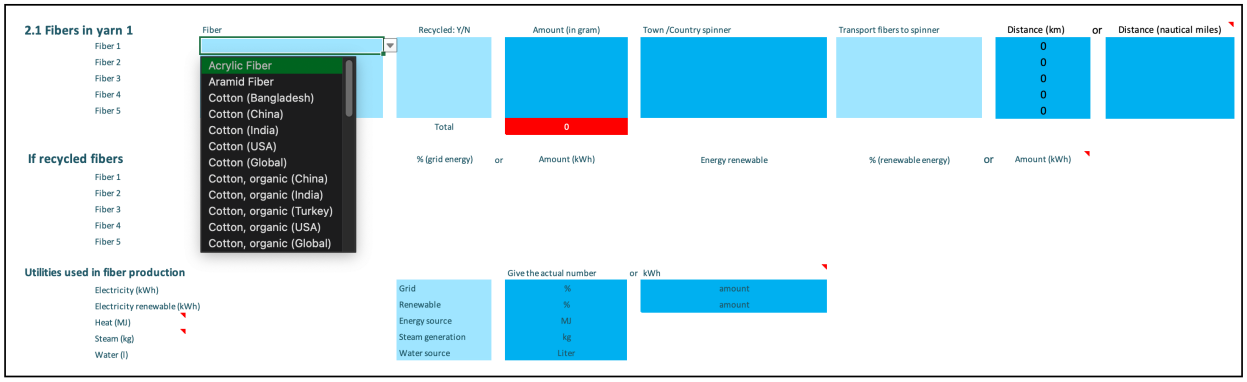
2.1 Conversion formulas

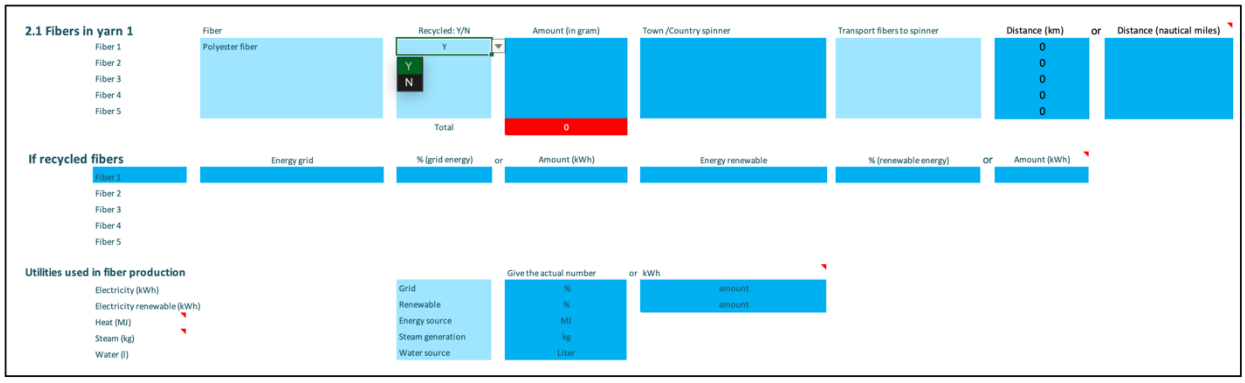
1 kg of coal = 25 MJ
1 litre of oil = 43 MJ
1 m3 gas = 38 MJ
1 kg wood = 15 MJ
1 kg of steam = 2.6 MJ

2.2 Data Entry

Step 1: Mention the total number of yarns the product is made up of. You can mention a maximum of 5 yarns.

Step 2: Pick the fibers utilized in Yarn 1 from the drop-down list. You can include a total of five fibers. All fibers including natural, synthetic, and recycled are available on this list.





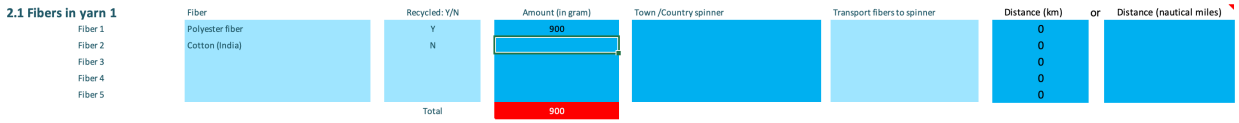
Step 3: Enter '**Y**' if the yarn is recycled and '**N**" if not.

Step 4: Enter the amount of each fiber **in grams**.

For 100% cotton or 100% synthetic: Enter 1000

For 60/40 cotton/polyester: Enter 600 and 400

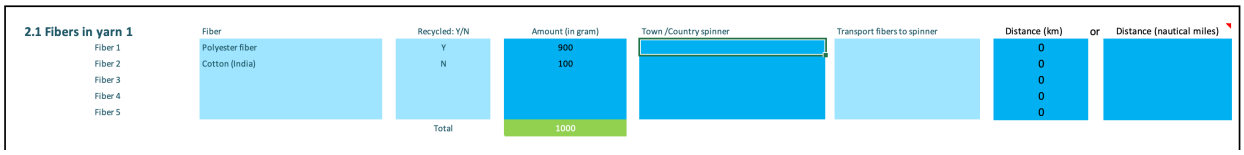
For 50/50 cotton/polyester: Enter 500 and 500 and so on…



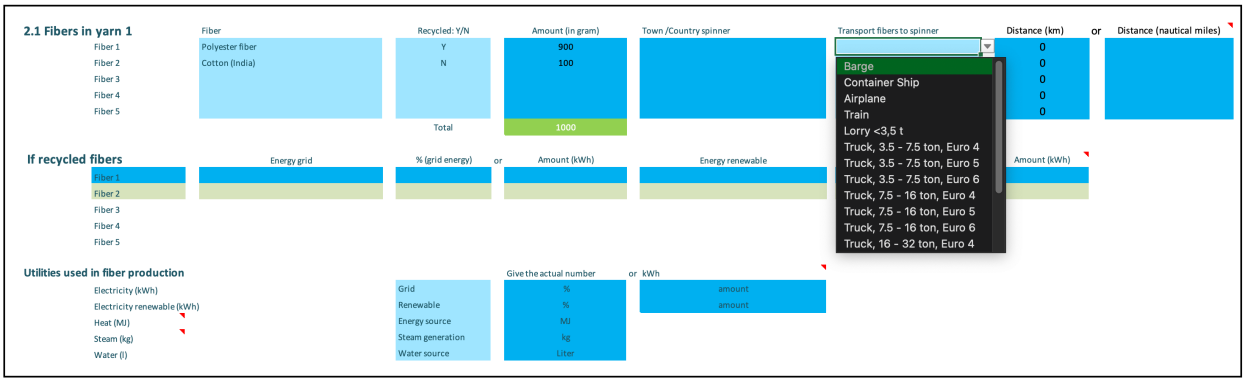
Do not leave the total in red.

Step 5: Make sure to check the **total to be green**.

Step 6: Specify the town or country where the process of spinning takes place.

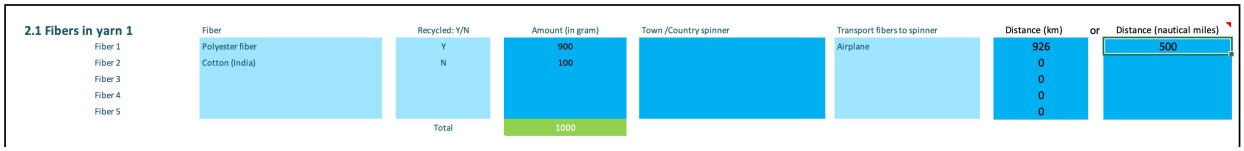


Step 7: Select the mode of transport from the drop-down list. Truck sizes are indicated in tons, with the 'Lorry' option specifically designed for loads less than 3.5 tons. Explore various other truck options available for selection.

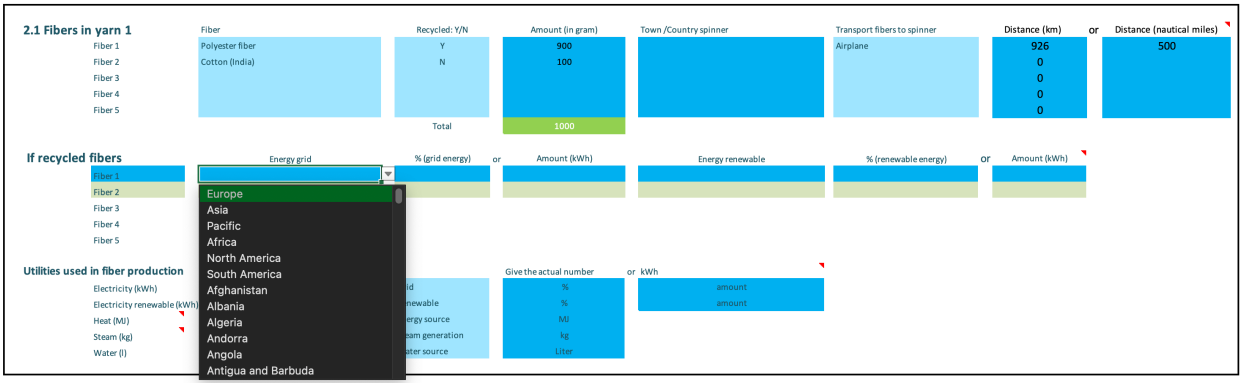


Step 8: Enter the distance in nautical miles. Nautical miles are a unit of measurement used in air, marine and space navigation for measuring distances over water. They are often used because they provide a convenient way to measure distances on the earth's surface, particularly when navigating over large bodies

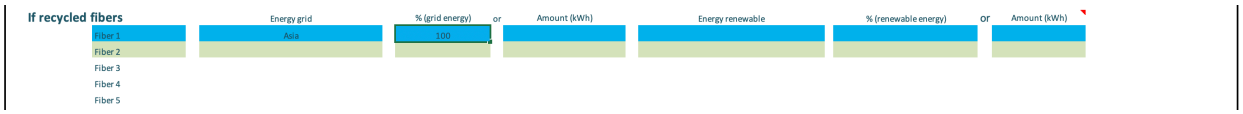
of water where traditional units like kilometers might not be as practical. The input file automatically calculates the distance in kilometers.



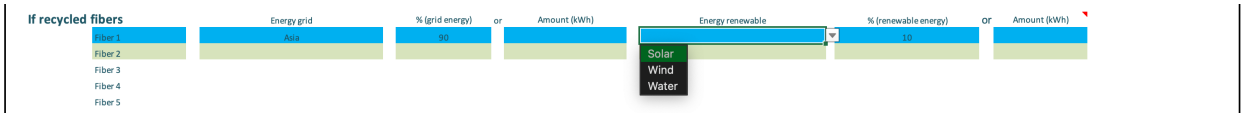
Step 9: Follow this step only if you have a recycled fiber. Pick the country from the drop-down list.



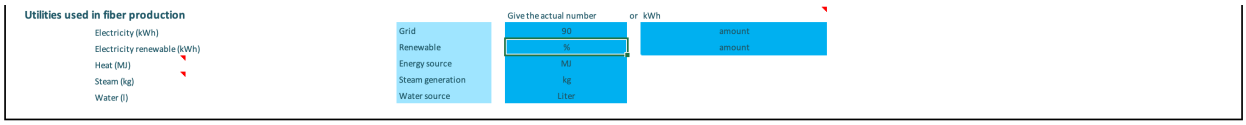
Step 10: Input either the percentage of grid energy or the quantity of grid energy in kilowatt-hours (kWh). It is not necessary to provide both values. If you have more information on the actual energy consumed per kilogram, only then input the 'amount' in kWh.



Step 11: If the product utilizes a blend of grid energy and renewable energy, specify the type of renewable energy along with the corresponding percentage used. Repeat this process for other recycled fibers.

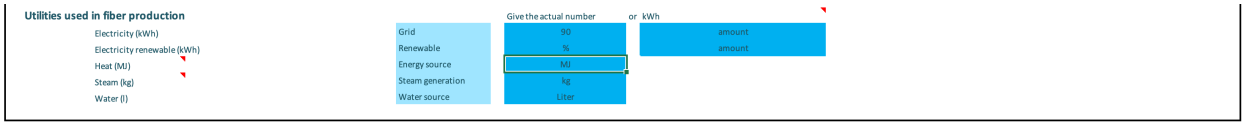


Step 12: Provide either the percentage of grid energy or the quantity of grid electricity in kilowatt-hours (kWh). It is not necessary to input both values.



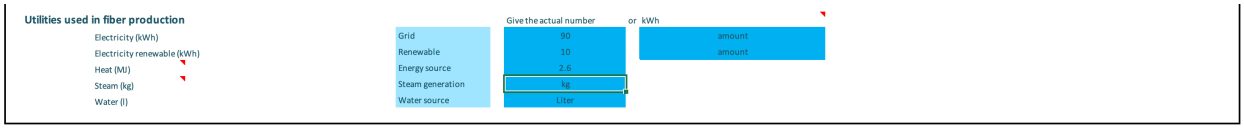
Step 13: Check the units before entering values in the cells. When in doubt, always look at the comments on each cell. Use the following conversion values for heat which can be in the form of coal, oil, gas, or wood.

1 kg of coal = 25 MJ
1 litre of oil = 43 MJ
1 m3 gas = 38 MJ
1 kg wood = 15 MJ



Step 14: Check the units before entering a value in the cells. When in doubt, always look at the comments on each cell. Use the following conversion value for steam:

1 kg of steam = 2.6 MJ



Step 15: Similarly, input the value for water in liters.

Reiterate steps 1-15 for Yarn 2, and likewise, proceed with the same steps for Yarn 3, 4, and 5. If these steps do not apply to the product for which the environmental impact calculation is being performed, please leave them blank.

3.0 SPINNING

C. SPINNING

3.1 Introduction

- bAwear uses yarn count in Number metric (Nm). Use the space on the right side of the sheet to convert other yarn count values to Nm. Enter a value in the cell highlighted to get a value in Nm.

Yarn count: bAwear Score uses yarn count in Number metric (Nm)				
Use the conversion table to convert the yarn number to Nm				
Ne	15	=	25	Nm
dtex	125	=	80	Nm
Denier	80	=	113	Nm

- Extra energy, heat and/or water might be used in twining also termed as plying, texturizing, mercerizing, and other processes to give yarns additional functional or aesthetic properties. Mention in the field below all the processes that apply or additional comments that you would like bAwear to know.

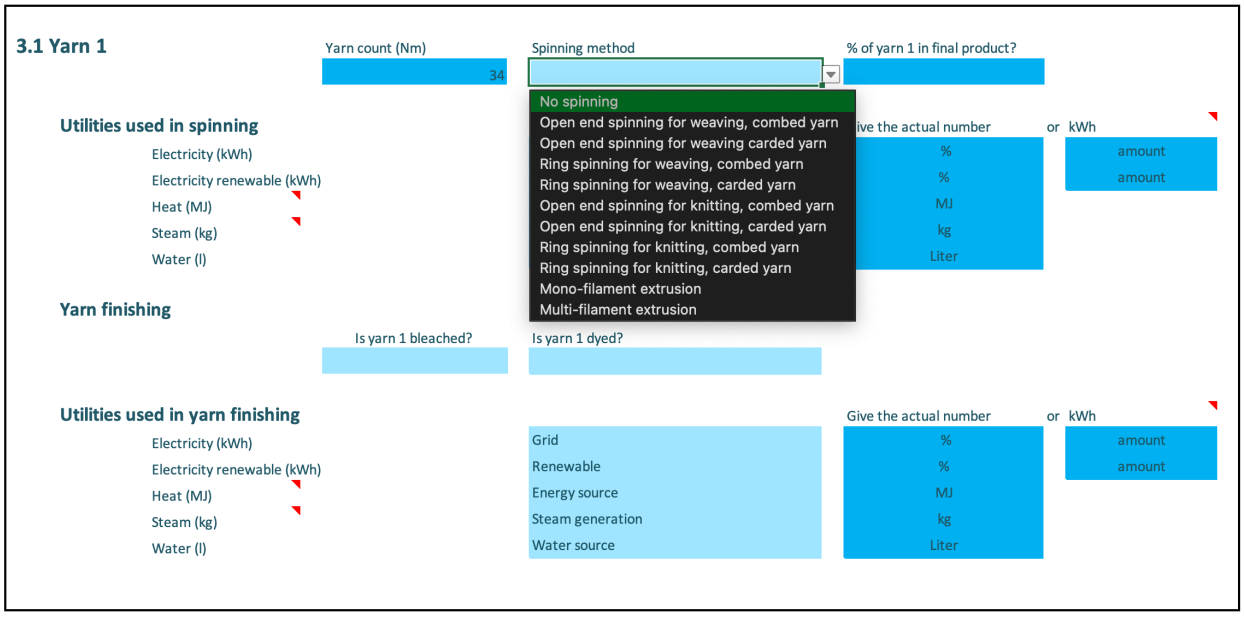
Your remarks / additional information

- Information in this section should be inputted for each yarn. A maximum of five yarn spinning details can be added.

3.2 Data Entry

Step 1: Mention the yarn count in Nm. Use the conversion table mentioned in section 3.1.

Step 2: Pick the spinning method from the drop-down list.

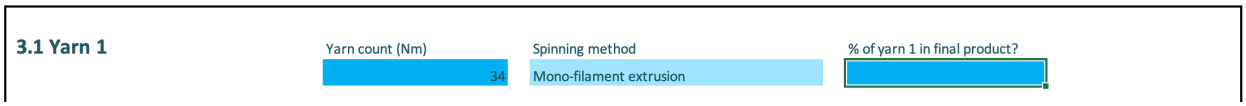


Monofilament extrusion: Does not apply to natural fibers. Applies only to man-made/synthetic and recycled yarns. An example of yarn count is 120Nm.

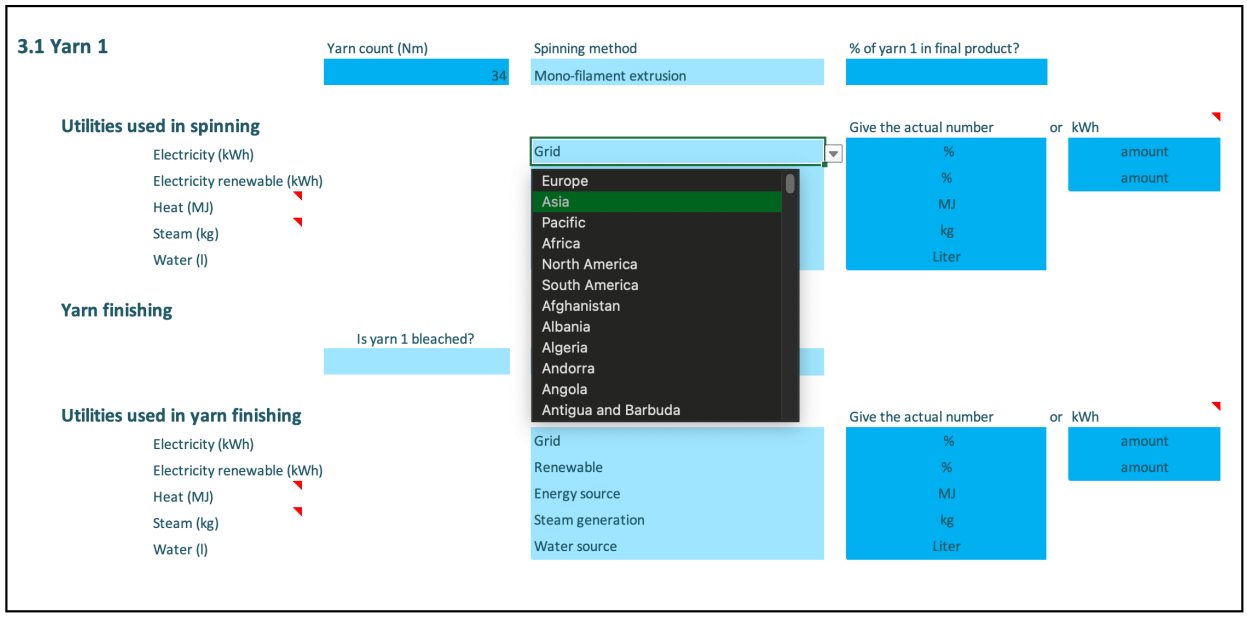
Multifilament extrusion: Does not apply to natural fibers. Applies only to man-made/synthetic and recycled yarns with more than one filament. Usually written as 120Nm 42f where f stands for the number of filaments. However, the yarn count that needs to be entered is 120Nm for multi and mono filaments.

Any yarn count written as 34 Ch stands for combed hosiery and needs to be entered as a knitting yarn.

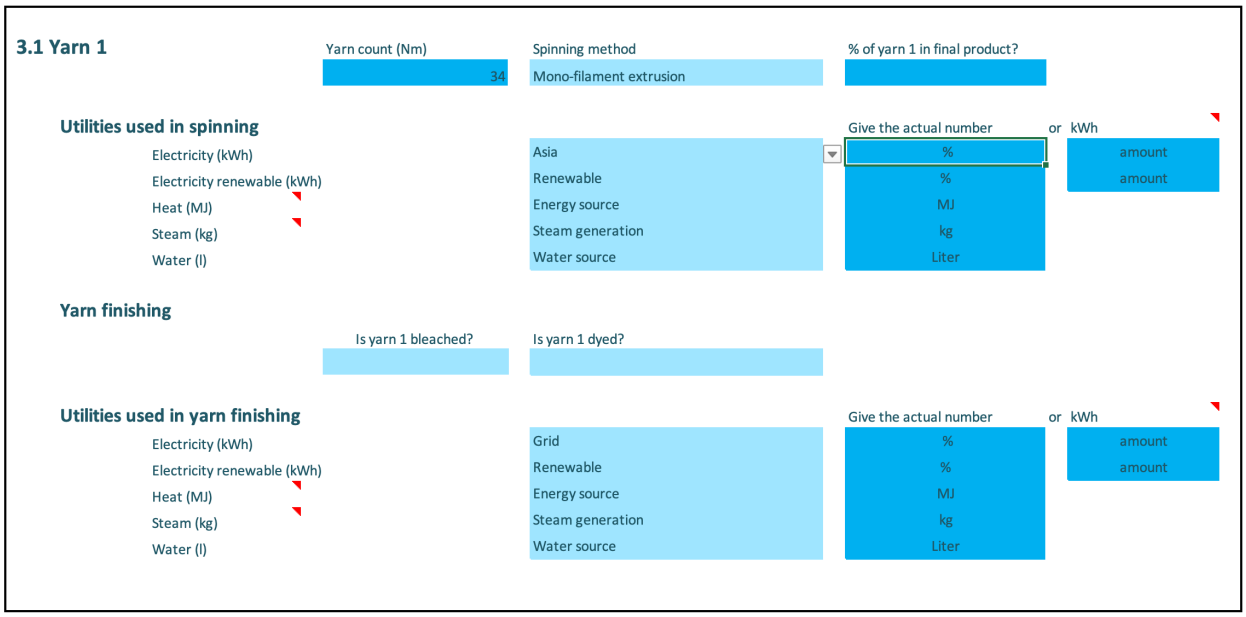
Step 3: Enter the percentage of yarn 1 in the final product.



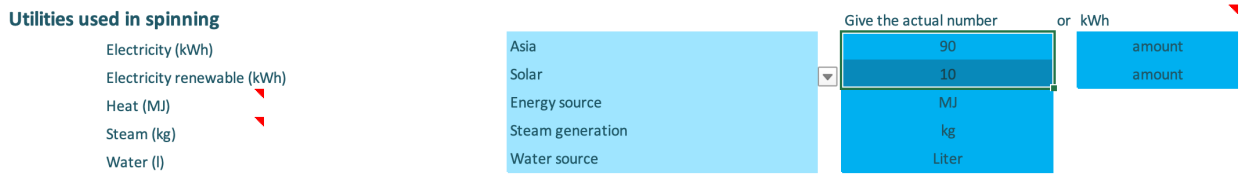
Step 4: Pick the region where the electricity grid is used.



Step 5: Give the actual percentage of consumption of electricity or mention the amount of electricity consumption in kWh.

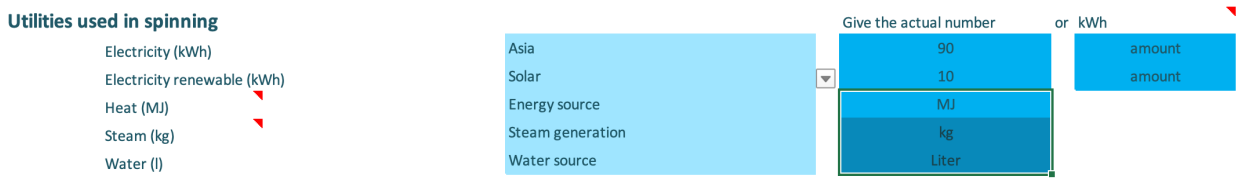


Step 6: If the yarn spinning process involves renewable energy consumption, indicate the percentage of renewable energy used and specify the type of renewable energy. If the product combines energy from the grid and a renewable source, ensure that their combined total equals 100%.



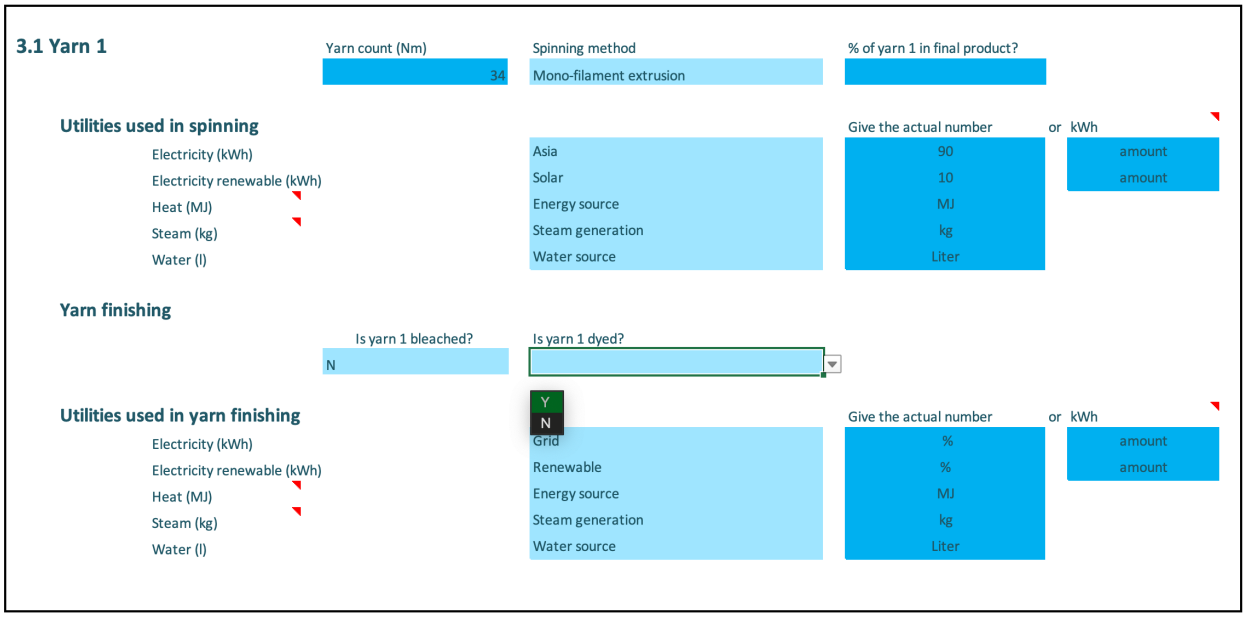
Step 7: Input the actual numbers for heat, steam, and water. Utilize the conversion formula provided below to enter values in the specified units within the respective cells.

In addition,
1 kg of coal = 25 MJ
1 L of oil = 15 MJ
1 m^3 of gas = 38 MJ
1 kg wood = 15 MJ
1 kg of steam = 2.6 MJ

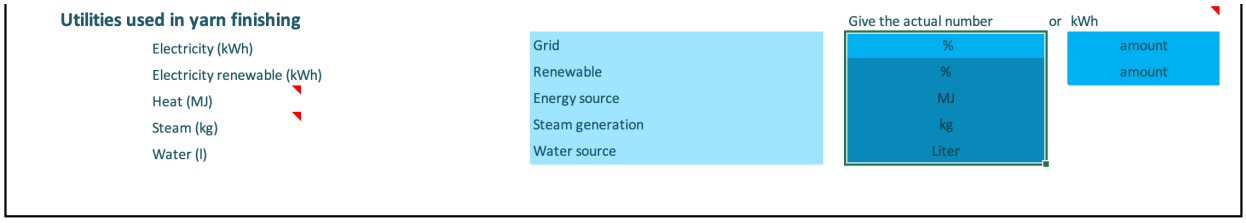


Step 8: As a next step, mention if the yarn is bleached or not. Pick '**Y**' for yes and '**N**' for No.

Step 10: In cases of synthetic/ man-made and recycled yarns, they could be **dope dyed**. In such cases, pick '**Y**' meaning that the yarn is dyed. Pick '**N**' otherwise.



Step 11: Repeat steps 4,5,6 and 7 however, keep in mind that the details that need to be entered are for the process of **yarn finishing**.



Duplicate steps 1 to 11 for Yarn 2, and likewise, follow the same procedure for Yarn 3, 4, and 5. If these specific yarns are not applicable, kindly leave the corresponding fields blank.

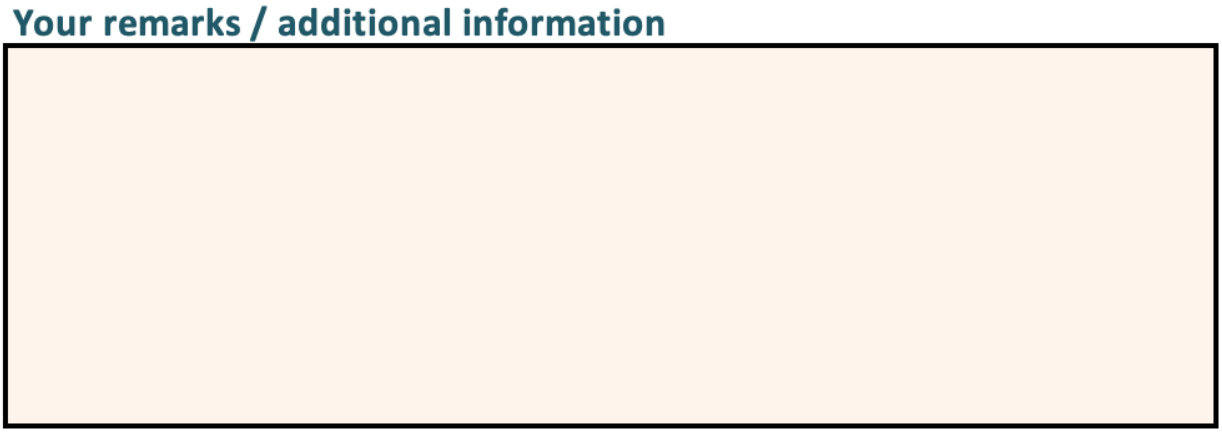
4.0 FABRICS

D. FABRICS

4.1 Introduction

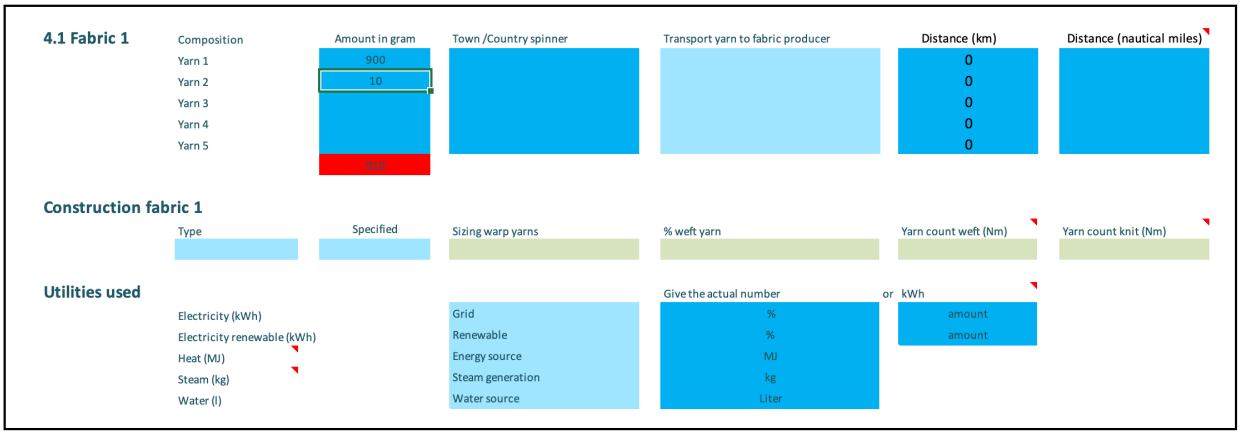
- A product can have multiple fabrics. For instance, a main fabric, a fabric for pocketing and more for complex cut & sew styles. Enter the total number of fabrics in the product.

- Details in this section need to be entered per fabric. A maximum of 5 fabric details can be added. In cases of specialty fabrics or exceptions, mention in the field below all additional comments that you would like bAwear to know.

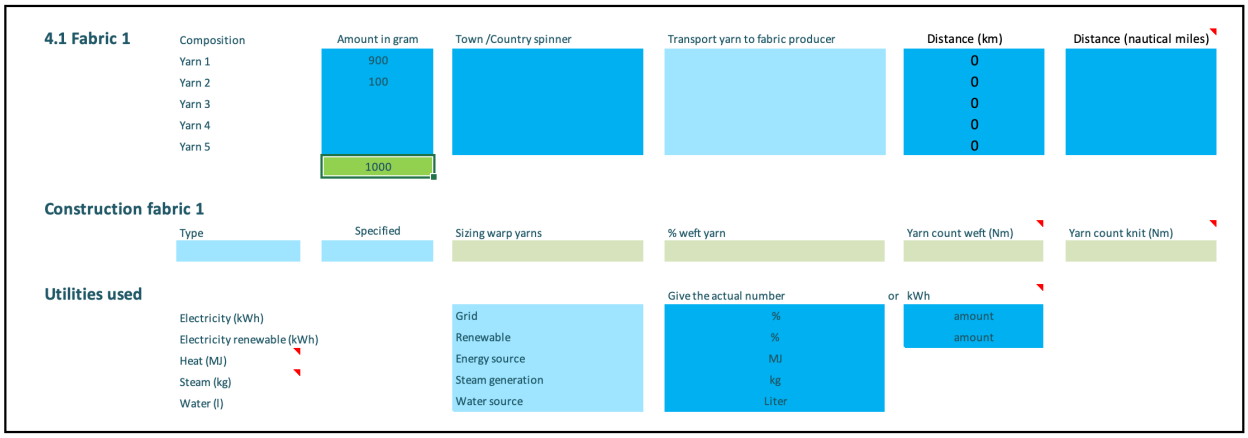


4.2 Data Entry

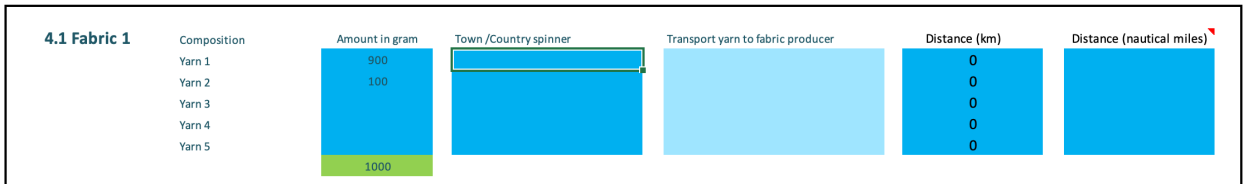
Step 1: For fabric 1, enter the amount of yarn 1 in grams.



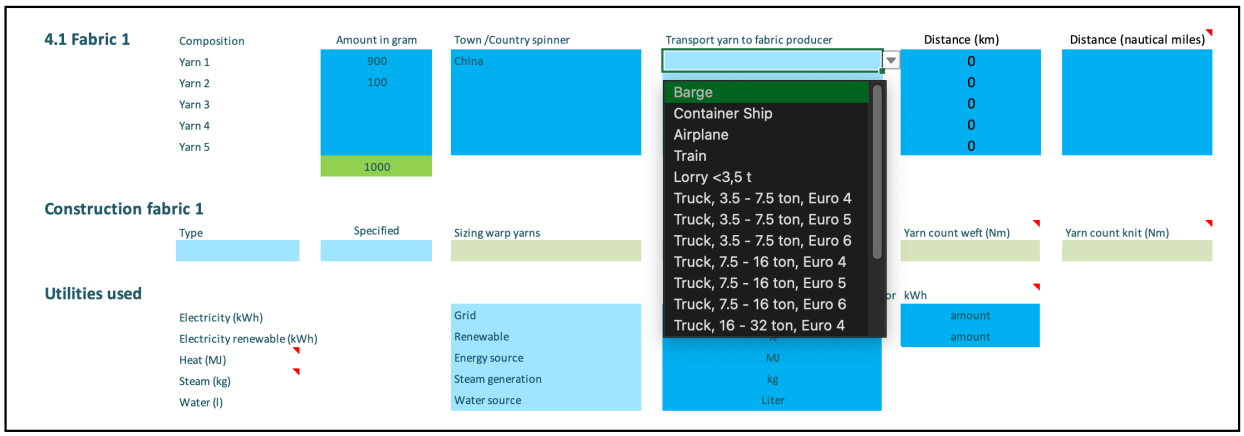
Step 2: In cases, where there are 2 yarns, make sure the total adds up to a 1000 and turns green.



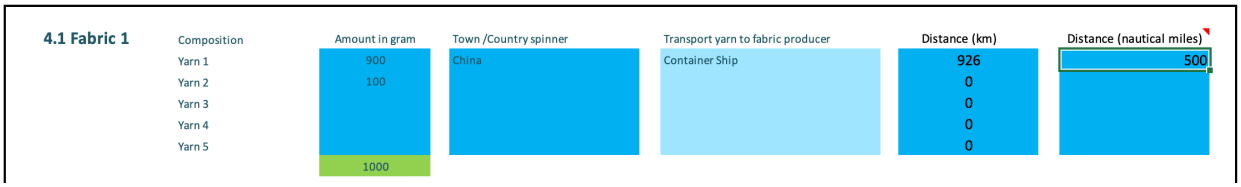
Step 3: Next, in the cell provided, write down the town or country where the spinner is located.



Step 4: Then, choose the mode of transportation from the drop-down list.

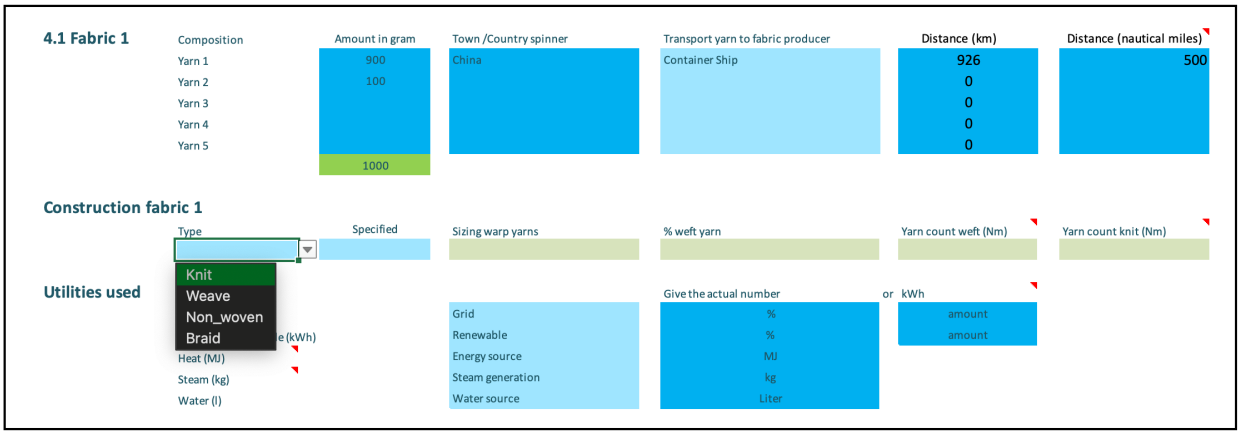


Step 5: Specify the distance in nautical miles. The equivalent distance in kilometers will be automatically calculated.

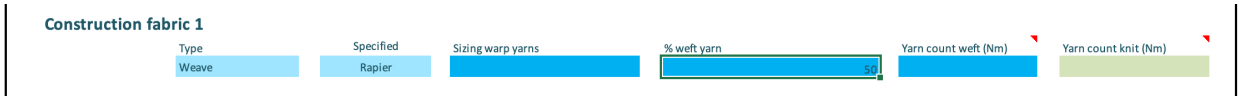


Step 6: Pick one from the options provided for the construction type for fabric 1.

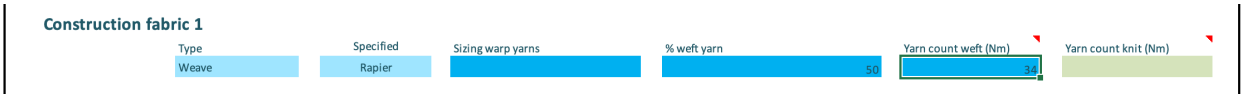
Knitting is a fabric constriction method that involves the interloping of yarns to create a flexible and stretchable textile. Weaving is a textile construction method where two sets of yarns, the warp, and the weft, are interlaced to right angles to form a fabric. Braiding is a textile technique that involves intertwining multiple strands of yarns to create a strong, structured often decorative product. Non-woven fabrics are made by bonding or felting fibers together which have different properties than woven or knitted textiles.



Step 7: Select the appropriate construction type for Fabric 1 from the provided options. For woven fabrics, it is mandatory to enter details for sizing warp yarns and the percentage of weft yarns. The system will automatically calculate the percentage of warp yarns as 100% minus the percentage of weft.



Step 8: Select the count of the weft yarn. If you leave this blank, the average yarn number will be used. Do not make any changes in the yarn count for knit if your fabric is woven.



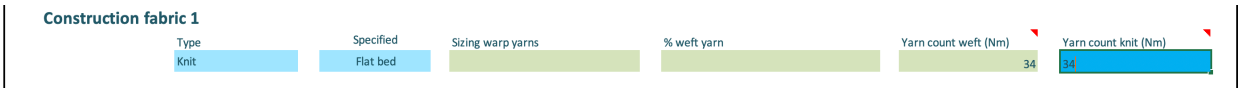
Step 9: Keep in mind that the yarn count for knits might differ when the yarns are twined or plied.

When the yarn is plied: eg. 30/2 Ne = 15Ne = 25Nm

When there are synthetic yarns with multiple filaments: Eg. 120Nm 40f = 120 Nm. (Do not take the number of filaments into account)

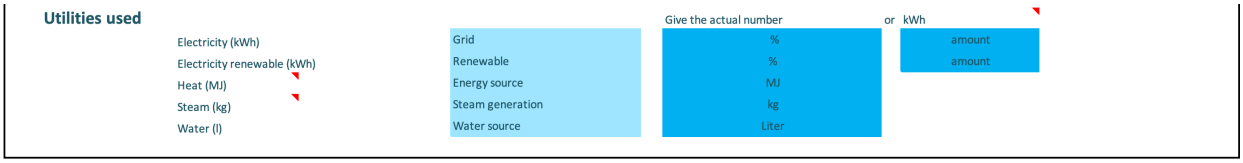
When there are multiple yarns: Eg. 34Nm & 51Nm = take average = (34+51)/2 = 42.5

When there are yarns used differently for different construction: Eg. 3T Terry 34Nm & 34Nm & 17Nm = take weighted average = How much % of yarn is used = (40x34Nm + 40x34Nm + 20x17Nm)/100 = 30.6



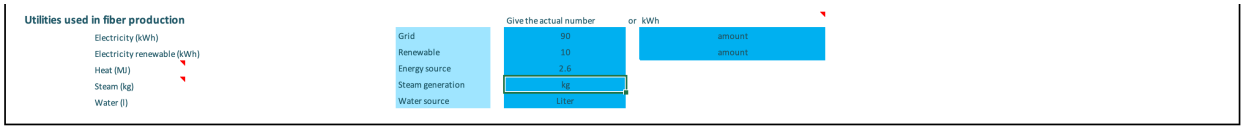
Step 9: Check the units before entering values in the cells. When in doubt, always look at the comments on each cell. Use the following conversion values for heat which can be in the form of coal, oil, gas, or wood.

1 kg of coal = 25 MJ
1 litre of oil = 43 MJ
1 m3 gas = 38 MJ
1 kg wood = 15 MJ



Step 10: Check the units before entering a value in the cells. When in doubt, always look at the comments on each cell. Use the following conversion value for steam:

1 kg of steam = 2.6 MJ



Step 11: Similarly, input the value for water in liters.

Furthermore, follow steps 1 to 10 for the other two fabrics in the product.

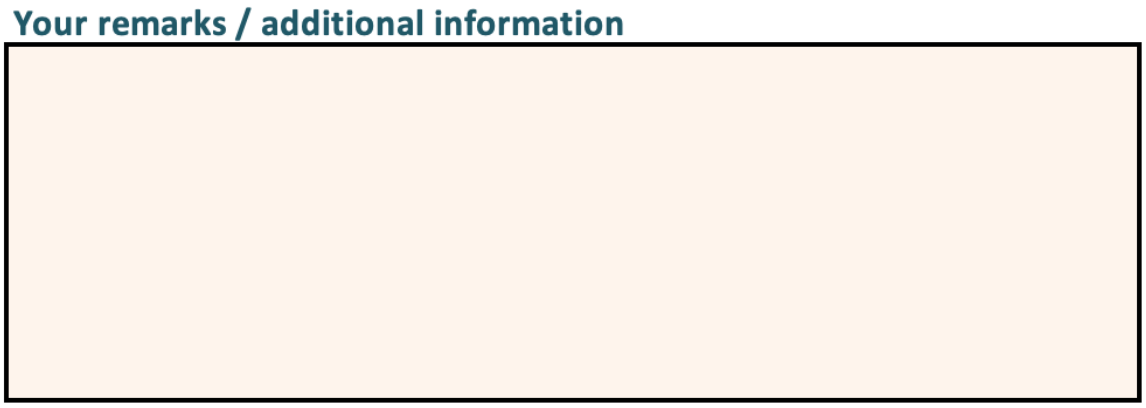
5.0 FINISHING

E. FINISHING

5.1 Introduction

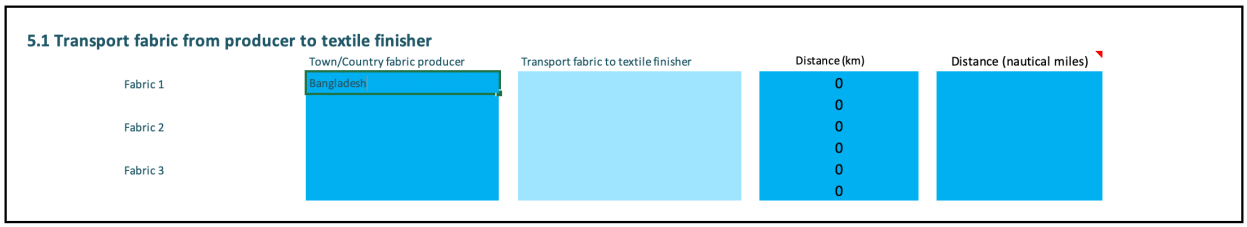
- Enter the total number of fabrics being used in the product in the area below.

- Enter details in this section per fabric. You can add a maximum of 3 fabric details. For specialty fabrics or exceptions, please provide additional comments in the field below for bAwear's reference. Details in this section need to be entered per fabric. A maximum of 3 fabric details can be added. In cases of specialty fabrics or exceptions, mention in the field below all additional comments that you would like bAwear to know.

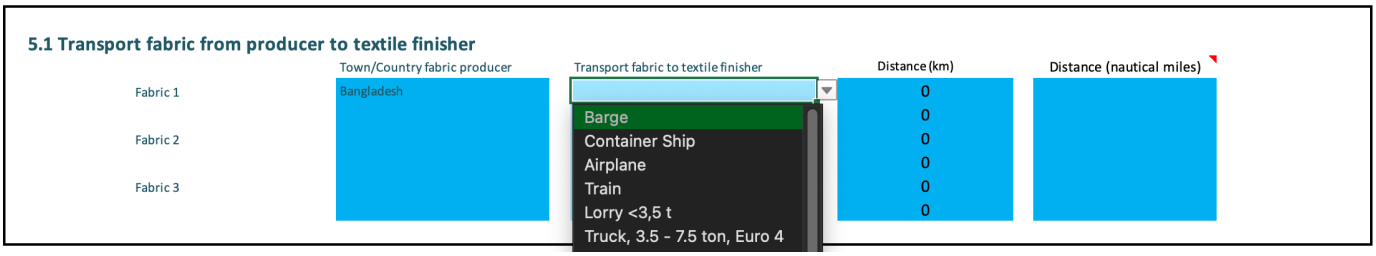


5.2 Data Entry

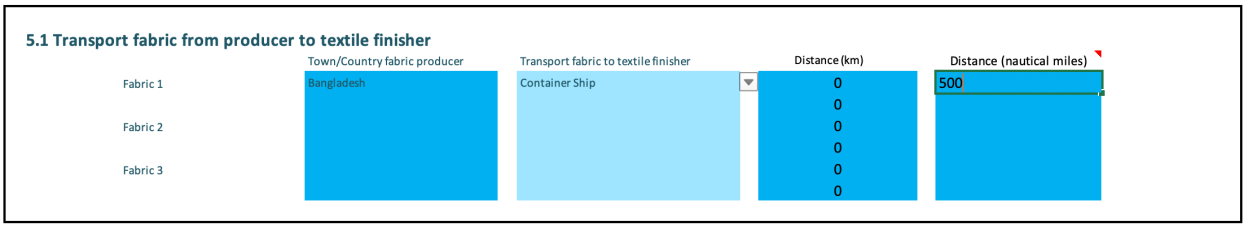
Step 1: For fabric 1, enter the town or the country where the fabric producer is located.



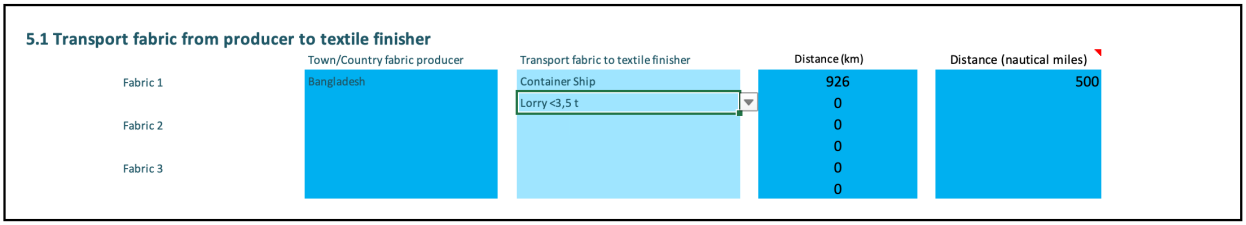
Step 2: Pick the mode of transport from producer to textile finisher. Pick one from the drop-down list.


5.1 Transport fabric from producer to textile finisher
Town/Country fabric producer
Transport fabric to textile finisher
Distance (km)
Distance (nautical miles)
Fabric 1
Fabric 2
Fabric 3
Bangladesh
Barge
Container Ship
Airplane
Train
Lorry <3,5 t
Truck, 3.5 - 7.5 ton, Euro 4
0
0
0
0
0
0

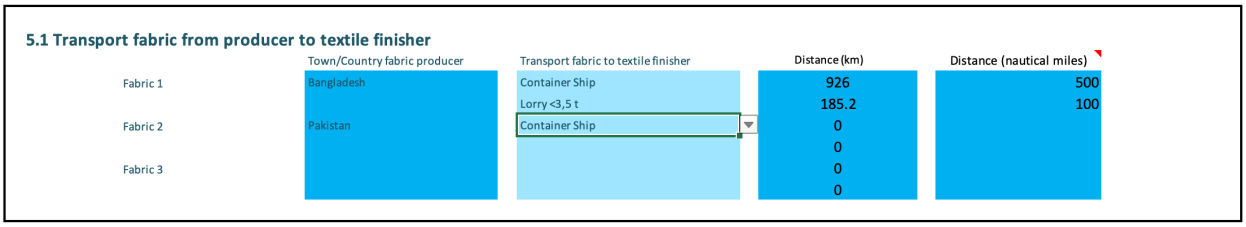
Step 3: It is required to mention distance in nautical miles. The distance in km is then automatically calculated.



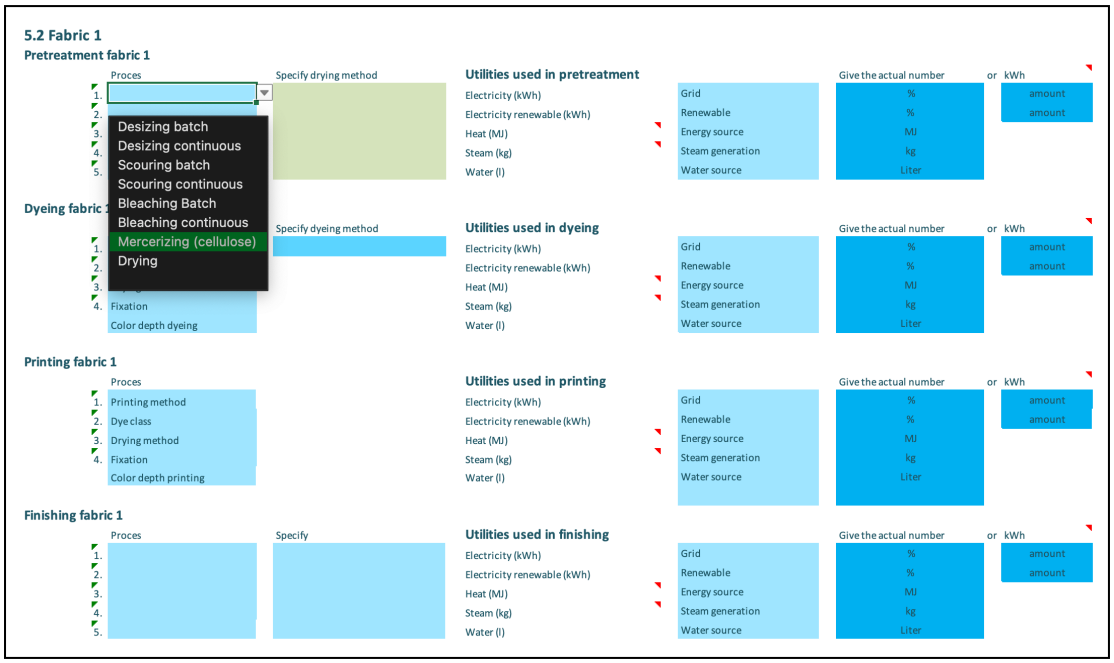
Step 4: This step applies in cases where there are multiple modes of transport for a particular fabric.



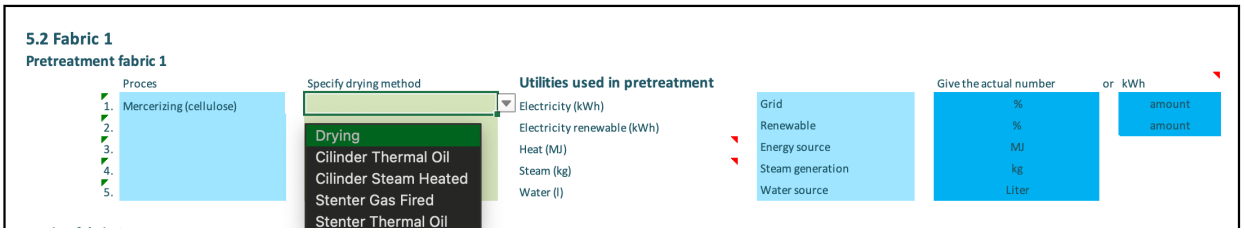
Step 5: Repeat steps 1 to 4 of this section ("Finishing" section).



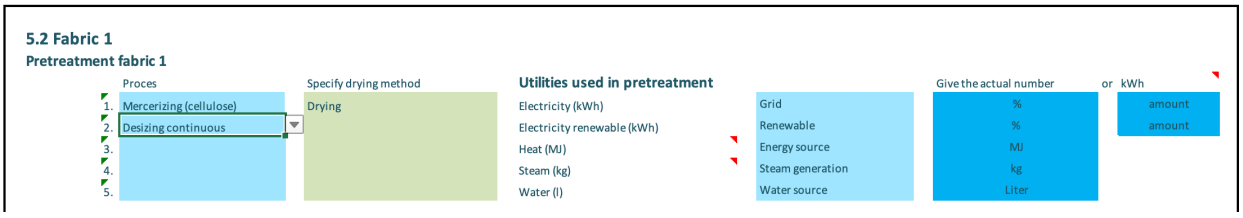
Step 6: Pick a pre-treatment process that applies to fabric 1.



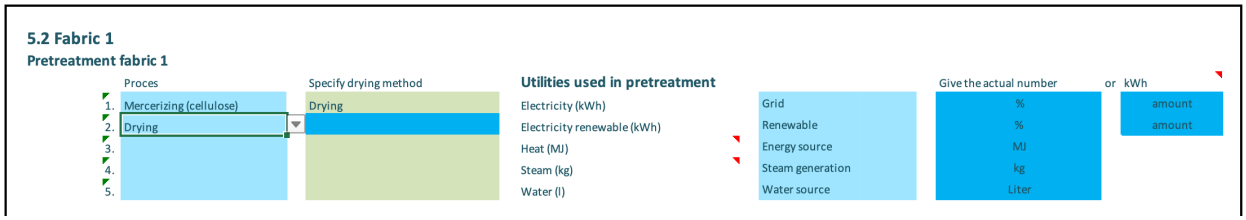
Step 7: Choose a drying method from the drop-down list. If you are uncertain and the method does not fall under the last 4 options, select option 1: Drying.

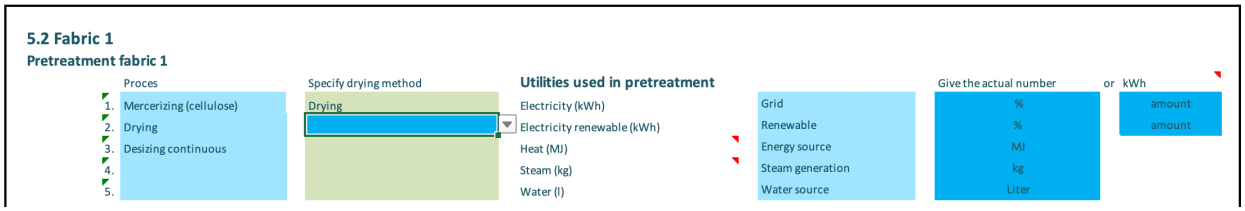


Step 8: In the same way mention if there are any other pre-treatment methods.

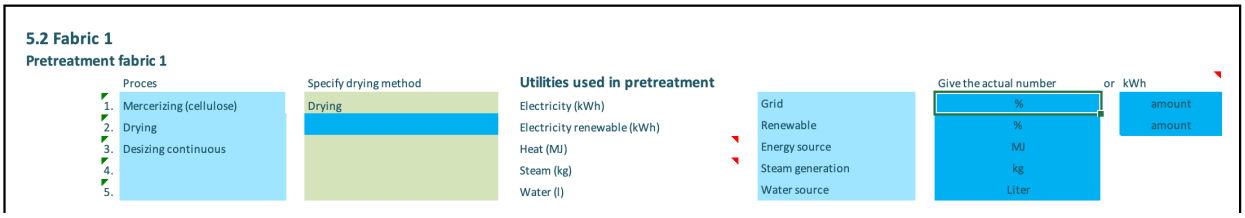


You can also just specify drying as one of the pre-treatment process. In this case it is mandatory to specify the type of drying.





Step 9: Enter details for utilities used in the pre-treatment process for fabric 1. In cases where grid and renewable energy is used as a combination, they need to **add up to a 100%.**

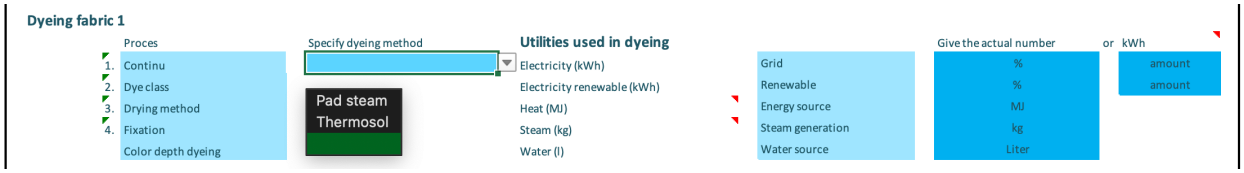


Step 7: Pick a fabric dyeing method from the list.

Continuous dyeing is an automated, high-speed process suitable for large-scale textile production, ensuring uniform color application with high precision. Normally a continuous dyeing rage consists out of a foulard (application of chemicals), a steamer (reaction of the chemicals) a washing range with multiple compartments (removal of reaction products and excess chemicals) and a drying range (stenter or cylinder dryer). In contrast, **discontinuous dyeing** is a batch process, slower in speed, but offers flexibility for smaller runs and specialized color requirements. Examples of batch dyeing equipment are (air-) jet dyeing machine and jigger. Most yarn dyeing processes are also discontinuous processes. Continuous dyeing prioritizes efficiency and consistency, while discontinuous dyeing allows for more customization at the cost of lower production speed and potentially higher impact.

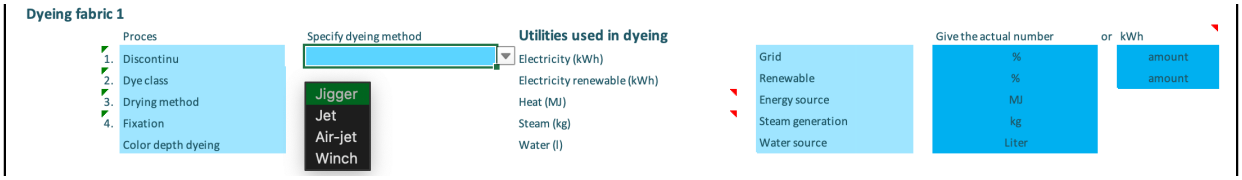
If you pick continuous, you are prompted with two options: (Pick one)

1. Pad steam
2. Thermosol



If you pick continuous, you are prompted with four options: (Pick one)

1. Jigger
2. Jet
3. Air-jet
4. Winch



For semi-continuous (Pick one)

Step 8: From the drop-down menu, pick a dye class that suits your product. The description of each dye class is given below:

Direct dyes: As the name suggests these dyes are known for their ability to bond directly with fibers of the fabric by van der Waals forces and hydrogen bonding. They require an electrolyte such as NaCl or Na_2SO_4 for high dye fiber substantivity. They are commonly applied to cellulosic fibers such as cotton. They are water soluble. After dyeing, the fabric is often rinsed to remove excess dye. While they offer simplicity in terms of application, they have some limitations in terms of colorfastness.

Reactive Dye: They present very good wash fastness because they bond via covalent bonding (strongest bond). This category at present dominates the global dye consumption for cellulosic.

VAT: It is a water insoluble dye. Hence it displays unsurpassed levels of fastness to various agents such as light and laundering.

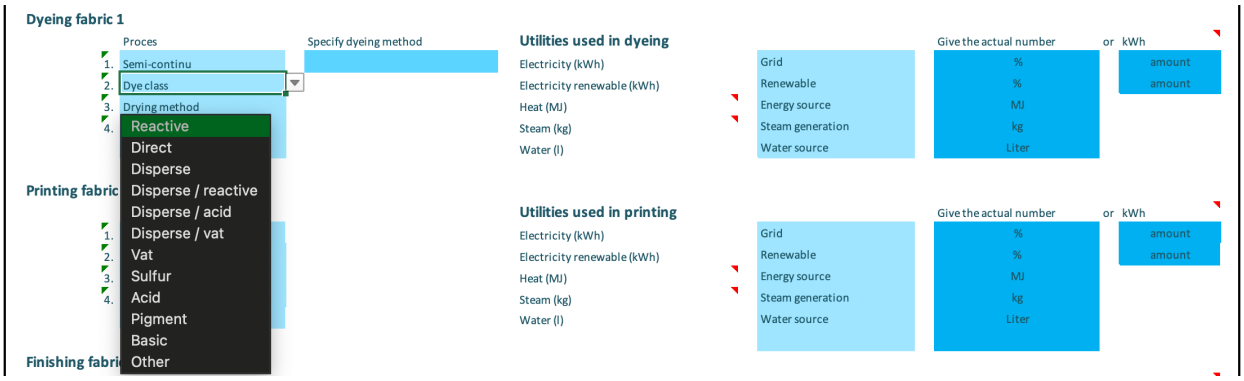
Sulphur: It is toxic and banned in some countries. The dye is limited in shades. But it is a relatively cheap process.

Acid dyes: This class of dyes is easy to apply. They are present in a wide range of colors. They present good fastness properties through ionic bonds. In addition, also have a high fixation rate of 83-90%. They are suited for protein (wool and silk), polyamide and acrylics.

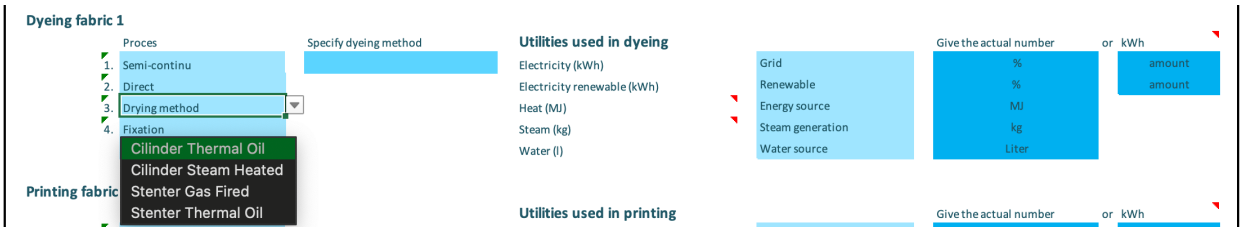
Disperse dyes: They are specifically designed to dye synthetic fabrics, particularly polyester and acetate. They have low solubility in water, so they are finely dispersed in a dispersing agent to create a dye bath. The process usually involves heating the dye bath to a high temperature to enhance the dye's solubility and facilitate its penetration into synthetic fibers. Once the dye molecules have diffused into the fibers, they become solid and color the material. After dyeing, the material is often subjected to a process such as washing and finishing to remove any excess dye and to enhance colorfastness. They provide vibrant and durable hues. <u>These are also suited for CO_2 dyeing.</u>

Basic/Cationic dyes: Mainly used for polyacrylic fibers. They present high dyeing efficiency and excellent fastness on PAN fibers.

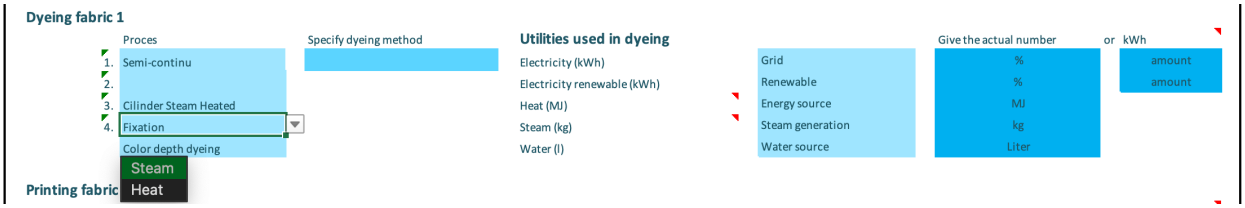
Pigment: They consist of finely ground color particles that adhere to the fabric through a mechanical process. They are not soluble in water. During the dyeing process of this dye class, the color particles attach to the surface of the fibers through physical bonding. Later, the fabric is often treated with heat or chemicals to ensure the color adheres firmly.



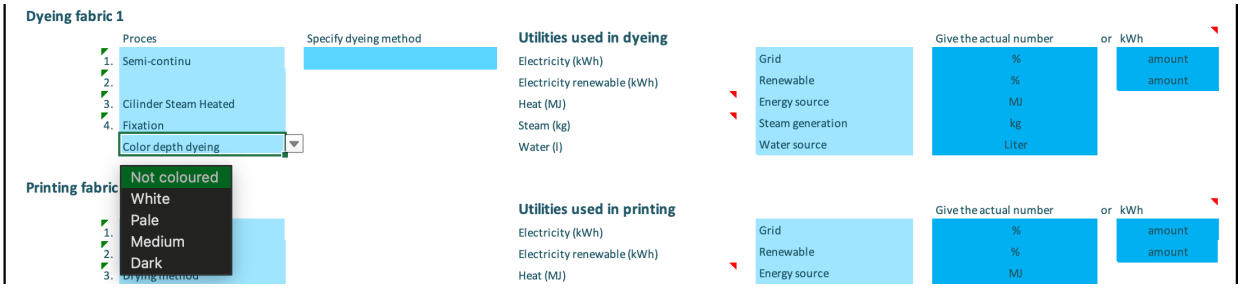
Step 9: From the drop-down menu, pick a drying method.



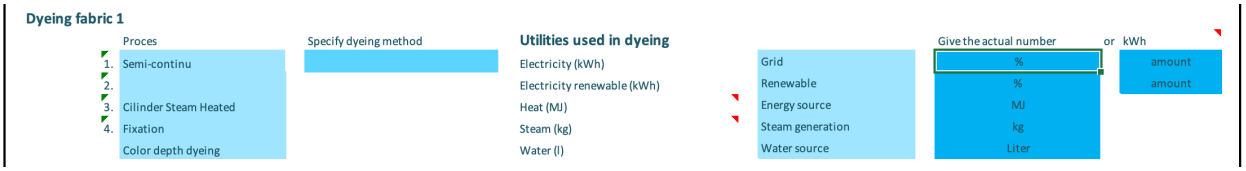
Step 10: Enter the form in which the fixation of the dye took place for fabric 1.



Step 11: Indicate the depth of the color achieved on fabric 1.



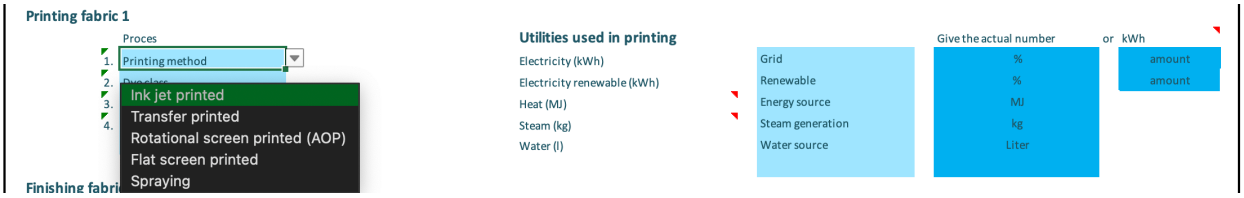
Step 12: Specify the values/amount of all utilities used in dyeing. Make sure to check if the % of renewable and grid is adding up to a 100%. This applies in cases where there is a combination of grid and renewable energy being applied for dyeing.



Step 12: Pick the printing method that applies for fabric 1. Read the description about each of the options below:

Inkjet printing for textiles involves the application of ink droplets directly onto fabric surfaces, allowing for precise and high-resolution designs. **Transfer printing** for textiles entails the transfer of a pre-printed design from a carrier paper onto fabric through the application of heat and pressure. **Rotational screen printing** for textiles utilizes a rotating cylindrical screen to apply ink onto fabric surfaces, enabling efficient

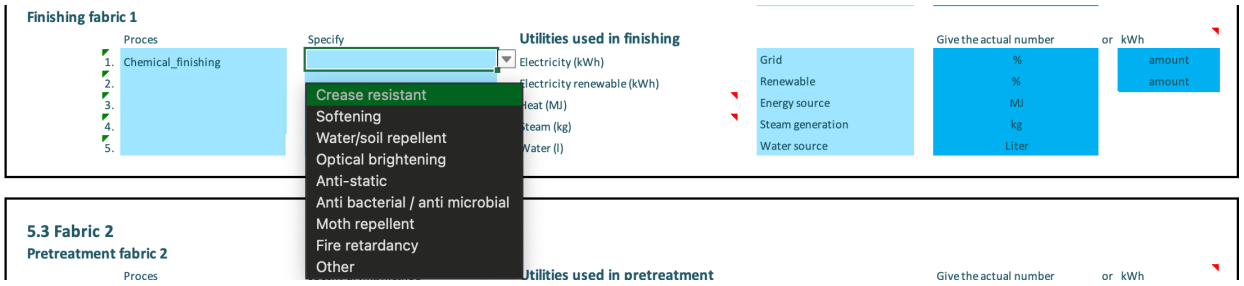
and consistent pattern reproduction. This is a common method to **all over print (AOP)** textile materials. **Flat screen printing** for textiles involves the direct application of ink through a flat screen onto fabric, allowing for precise and versatile pattern designs. Textile **spraying** is a method where color or treatment is applied to fabric using a spray application, providing even coverage and versatile design possibilities.



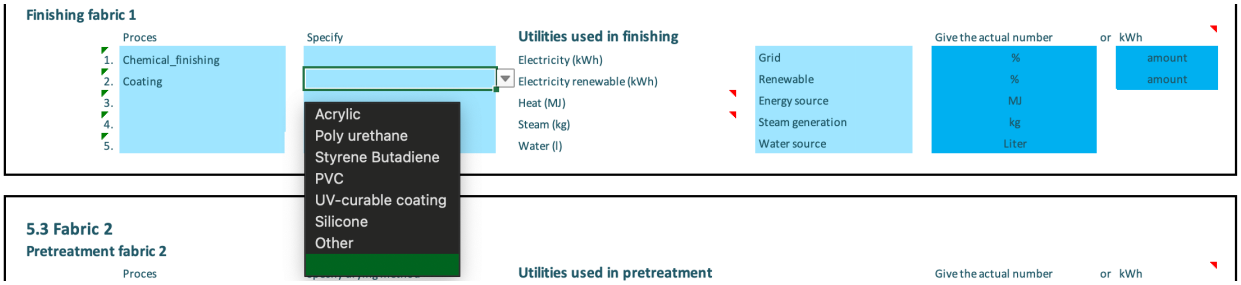
Step 12: The same dye classes, drying, color depth options and fixation methods apply. Look at steps 9 to 11 and fill in details for printing fabric 1. Specify the values/amount of all utilities used in printing. Make sure to check if the % of renewable and grid is adding up to a 100%. This applies in cases where there is a combination of grid and renewable energy.

Step 13: Select one among the four options presented for finishing fabric 1. You can choose a maximum of 5 finishing processes for fabric 1.

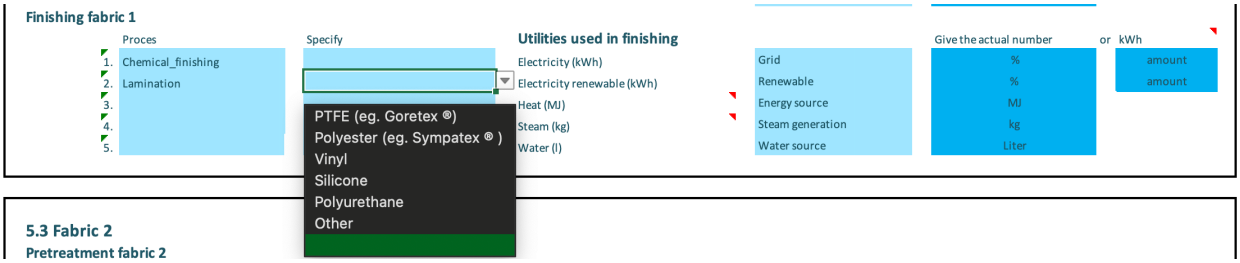
Chemical finishing stands for the application of specific chemicals to alter the properties of the fabric, enhancing characteristics such as softness, durability or resistance to wrinkles or stains. Specify the type of chemical finish that applies to your product.



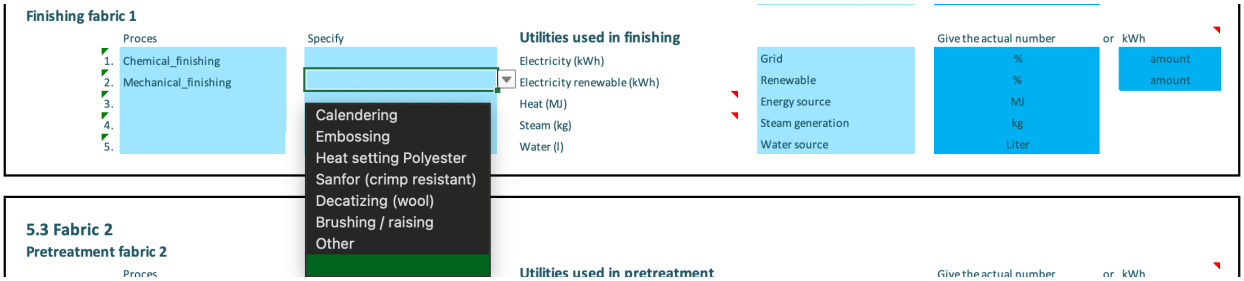
Coating involves applying a layer of polymers or resins onto fabric surface to enhance properties such as water resistance, durability or for thermal insulation. Specify the type of coating method that applies to your product.



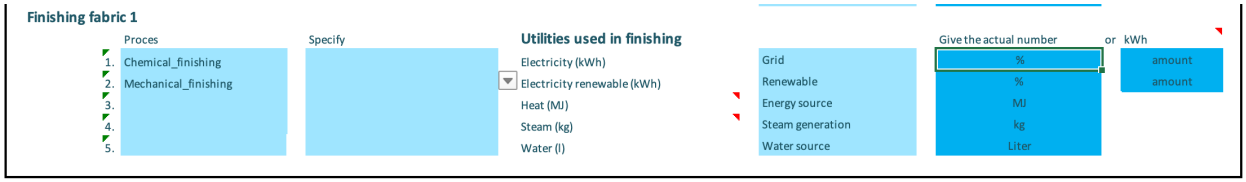
Lamination as a finishing process where layers of material, typically a film or adhesive, are bonded onto the fabric surface to enhance qualities like water resistance, strength, or a barrier against the external environment. Specify the type of lamination method that applies to your product.



Mechanical finishing in textiles on the other hand refers to the alteration of fabric properties through physical processes, such as brushing, calendaring, embossing, heat setting, sanforising, decatizing to name a few. Specify the most appropriate choice for your product.



Step 14: Specify the values/amount of all utilities used in finishing fabric 1. Make sure to check if the % of renewable and grid is adding up to a 100%. This applies in cases where there is a combination of grid and renewable energy being applied for finishing.



☑

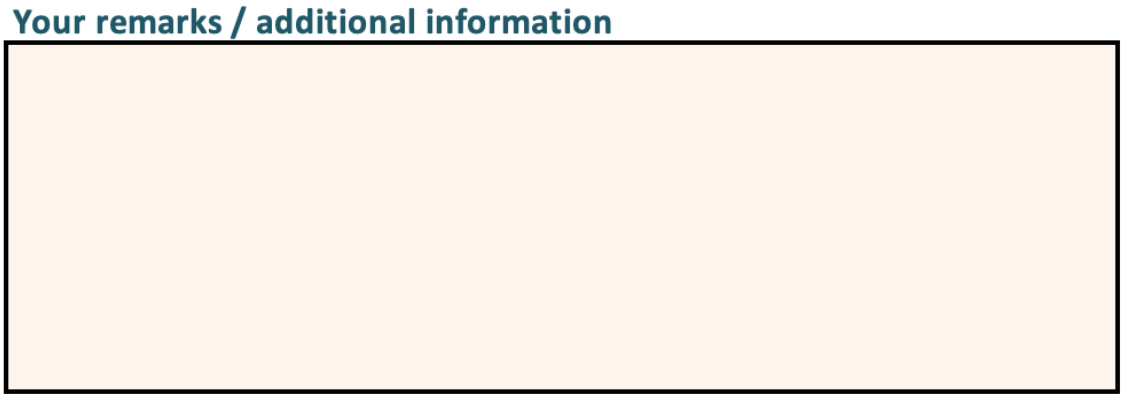
As directed, replicate procedure from steps 1 to 14 for fabric 2 and fabric 3.

6.0 MANUFACTURING

F. MANUFACTURING

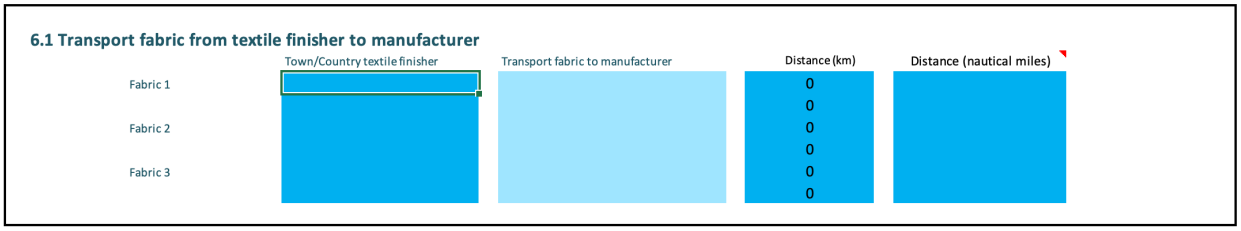
6.1 Introduction

- In cases of specialty fabrics or exceptions, mention in the field below all additional comments that you would like bAwear to know.

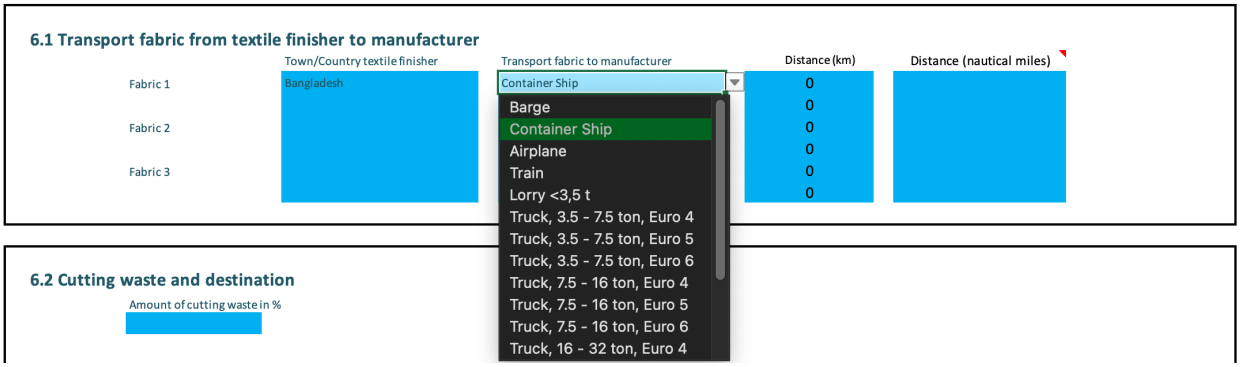


6.2 Data Entry

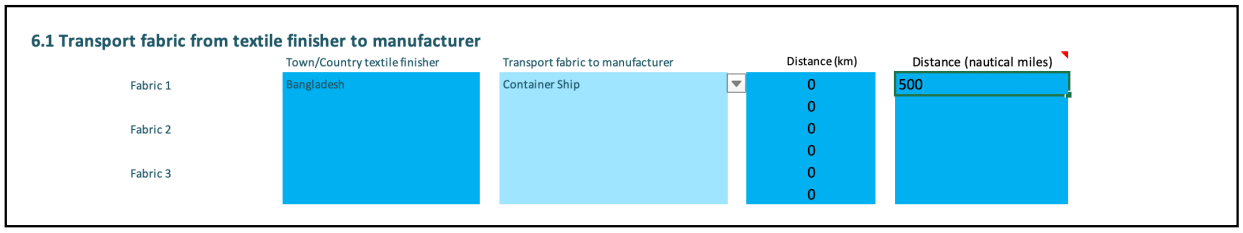
Step 1: Enter the town or the country where the textile finisher is located.



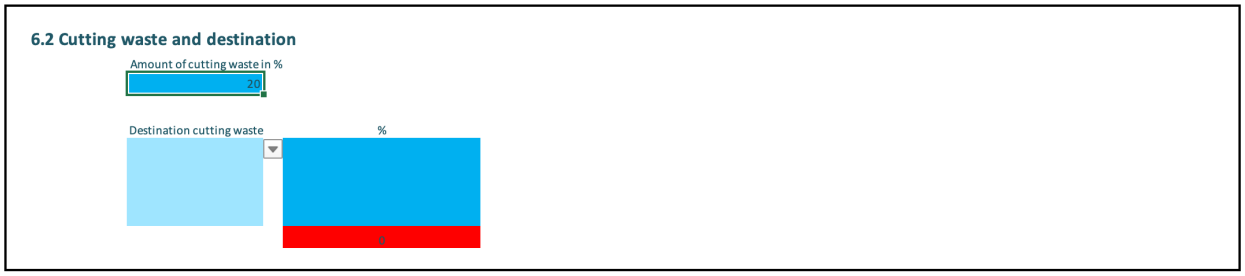
Step 2: Pick the mode of transport from textile finisher to manufacturer. Pick one from the drop-down list.



Step 3: As a next step, it is required to mention distance in nautical miles. The distance in km is then automatically calculated.

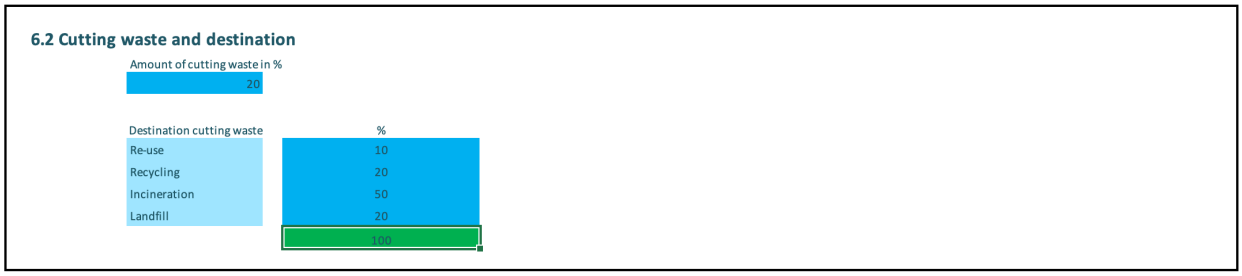


Step 4: This step requires the % of cutting waste from the manufacturing process.



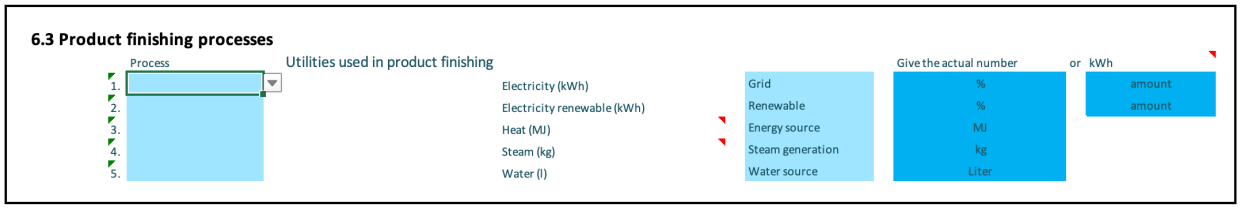
Step 5: Mention the % of waste re-used against it. Similarly, mention the % of waste recycled. This is followed by % of waste incinerated or landfilled.

Step 6: Make sure to check if the total reached a 100 and turned green.

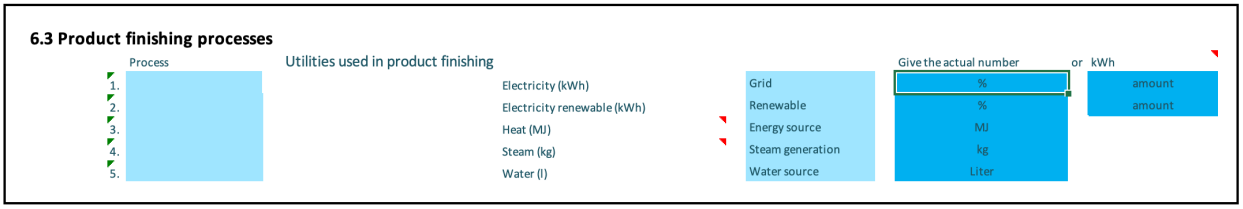


Step 7: A maximum of 5 product finishing processes can be chosen. Among the list of options are:

Textile treatment processes encompass a variety of techniques to enhance the characteristics and appearance of fabrics. **Chemical bleaching** involves the strategic use of chemicals to alter the color of fabrics, while **decatizing** is a finishing method primarily applied to wool to enhance stability and reduce shrinkage. **Embroidery**, whether featuring a small or large logo, entails the meticulous stitching of designs onto fabric surfaces. The small ones are usually logos for branding while the large one could be on the front panel of the product. The **enzyme wash** technique employs enzymes to achieve a soft and worn-in aesthetic for fabrics. **Garment dyeing** is a process where finished garments receive color, providing a unique and vibrant appearance. **Ironing** is a straightforward method utilizing heat and pressure to eliminate wrinkles from fabrics. Most products in the industry are always ironed after manufacturing except for garment dyed products. **Laser finishing** employs advanced technology to create intricate patterns or distressing on fabrics with precision. **Mechanical treatment**, especially for jeans, involves processes like distressing and abrasion to achieve a vintage denim look. **Nano/plasma finishing** utilizes nanotechnology or plasma treatment to enhance fabric properties such as water repellency or wrinkle resistance. **Ozone** treatment is a sustainable approach using ozone gas for fabric bleaching without the need for chemicals. The **pebble wash** technique employs small, abrasive stones to create a distressed and textured appearance on knitted garments. **Screen printing**, whether large or small, involves the application of ink through a screen onto fabric, producing bold and detailed designs. **Softener wash** utilizes softening agents to impart a smooth and luxurious feel to fabrics. **Stone wash** is a process employing stones to achieve a softened and worn-in appearance, particularly for denim. **Transfer printing** methods include the application of designs onto fabric through heat and pressure, providing durable and vivid results, with the **heat seal** variation ensuring a lasting and vibrant transfer.



Step 8: Specify the values/amount of all utilities used in manufacturing of the product. Make sure to check if the % of renewable and grid is adding up to a 100%. This applies in cases where there is a combination of grid and renewable energy being applied for manufacturing.

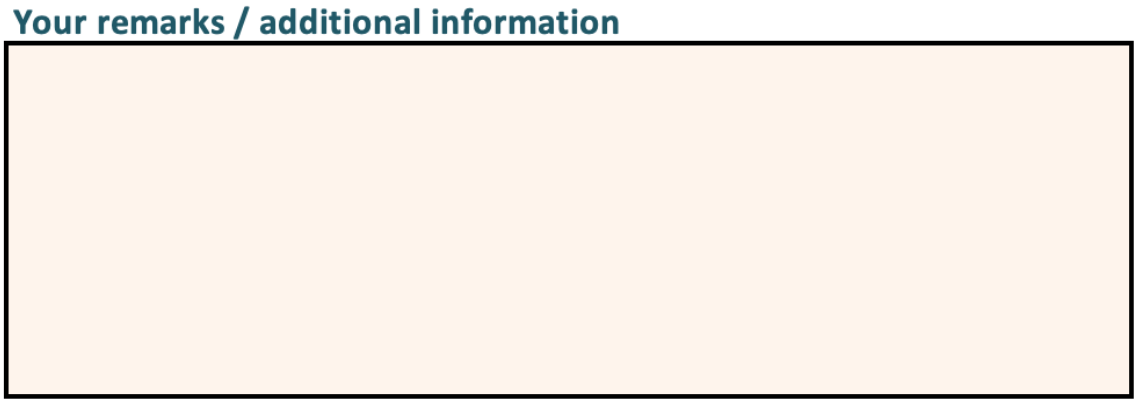


7.0 PACKAGING AND TRANSPORT

G. PACKAGING AND TRANSPORT

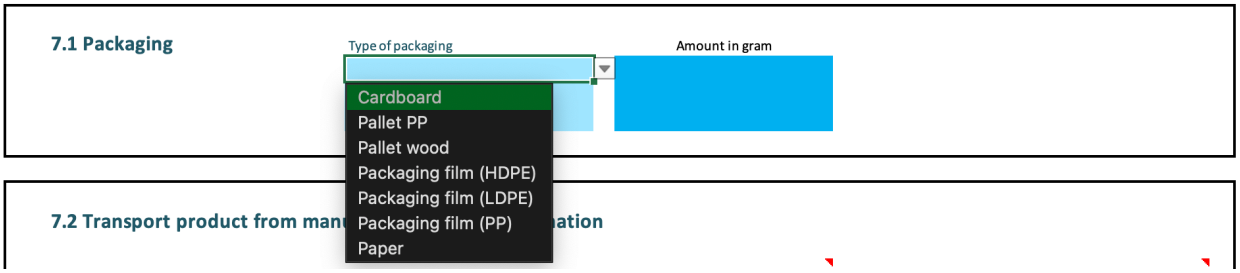
7.1 Introduction

- In cases of specialty fabrics or exceptions, mention in the field below all additional comments that you would like bAwear to know.

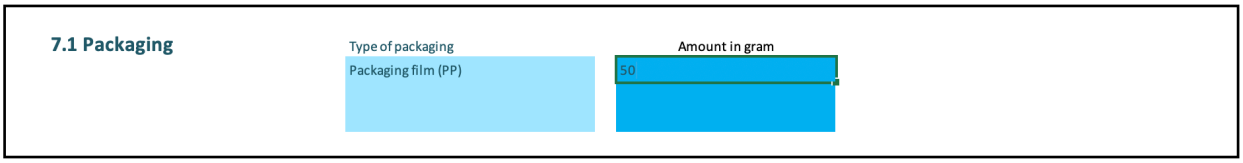


7.2 Data Entry

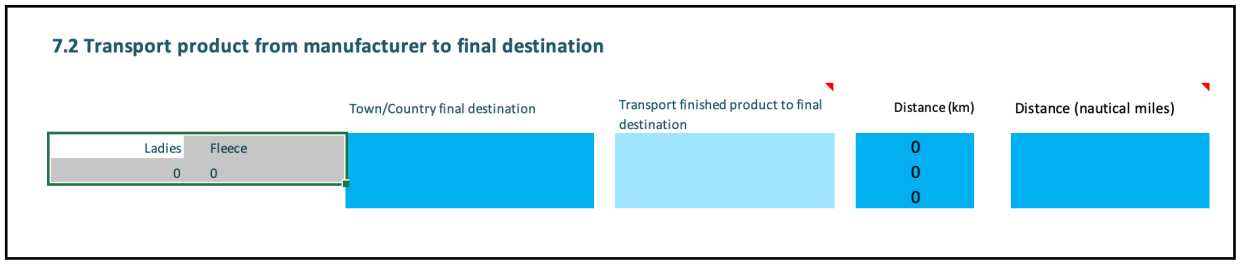
Step 1: Select the packaging material from the options given. A maximum of 3 can be chosen.



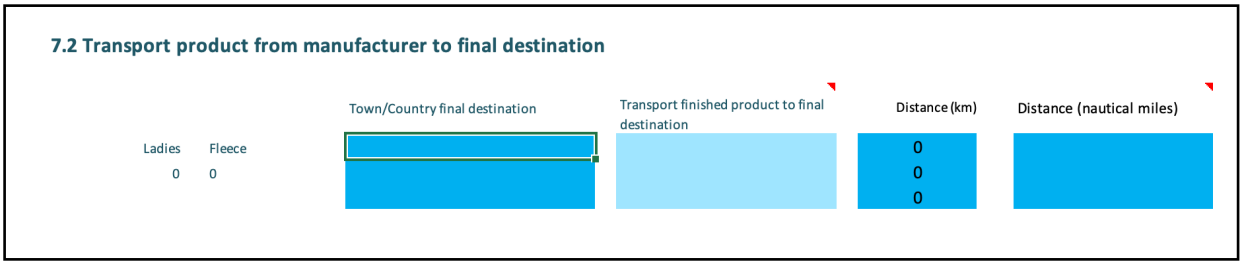
Step 2: Enter the weight of the material in gram.



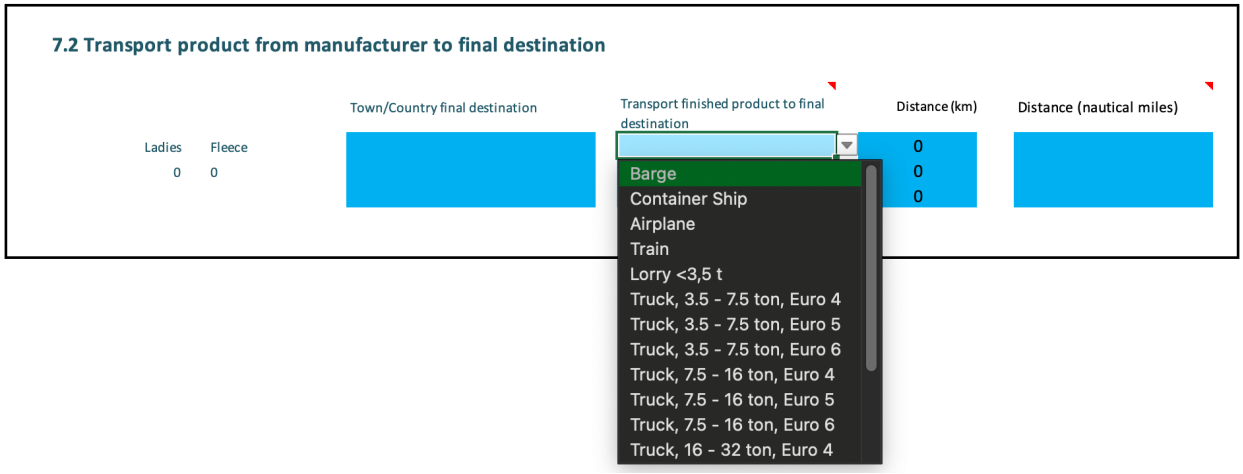
Step 3: You do not have to enter any values. This is linked to the information entered on section ‘General” and shows the product category of the product. Please check if the categories appearing are correct.



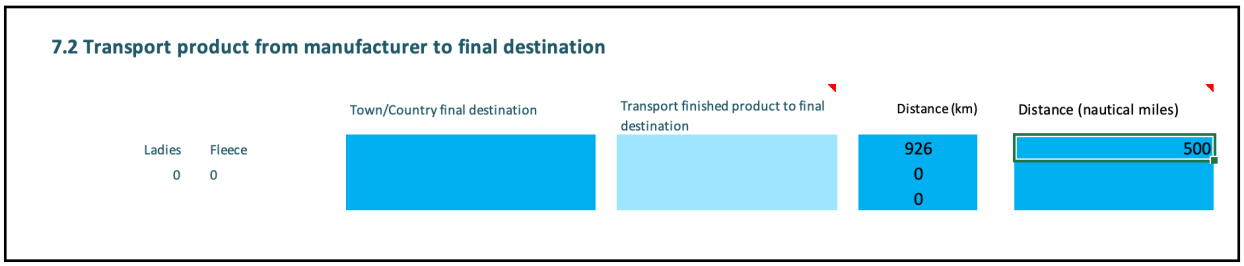
Step 4: Specify the location of destination of the product.



Step 5: Specify the mode of transport for the product to arrive at the destination.



Step 6: As a next step, it is required to mention distance in nautical miles. The distance in km is then automatically calculated.

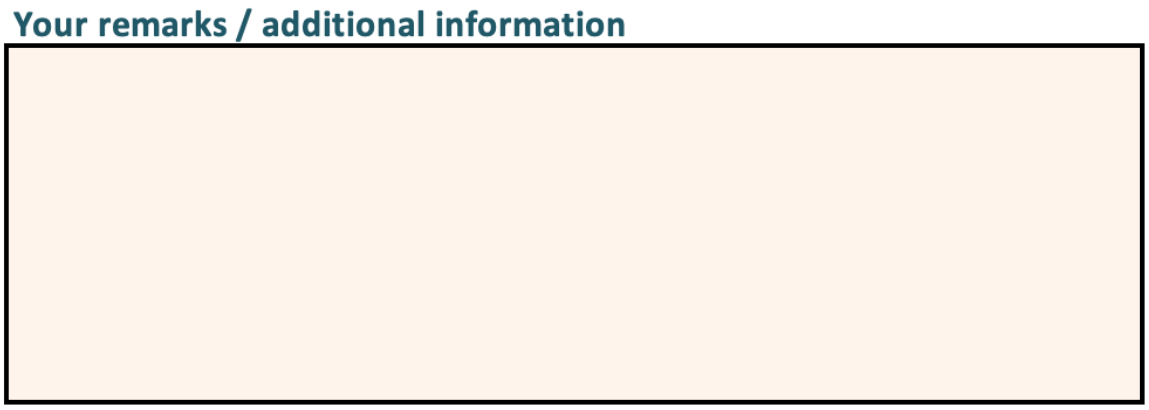


8.0 USE - CARE

H. USE - CARE

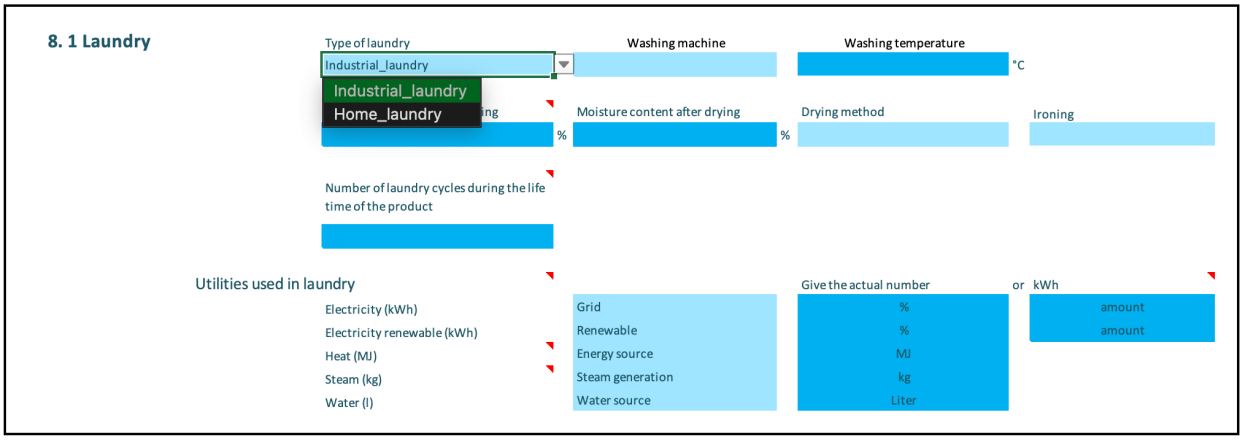
8.1 Introduction

- In cases of specialty fabrics or exceptions, mention in the field below all additional comments that you would like bAwear to know.

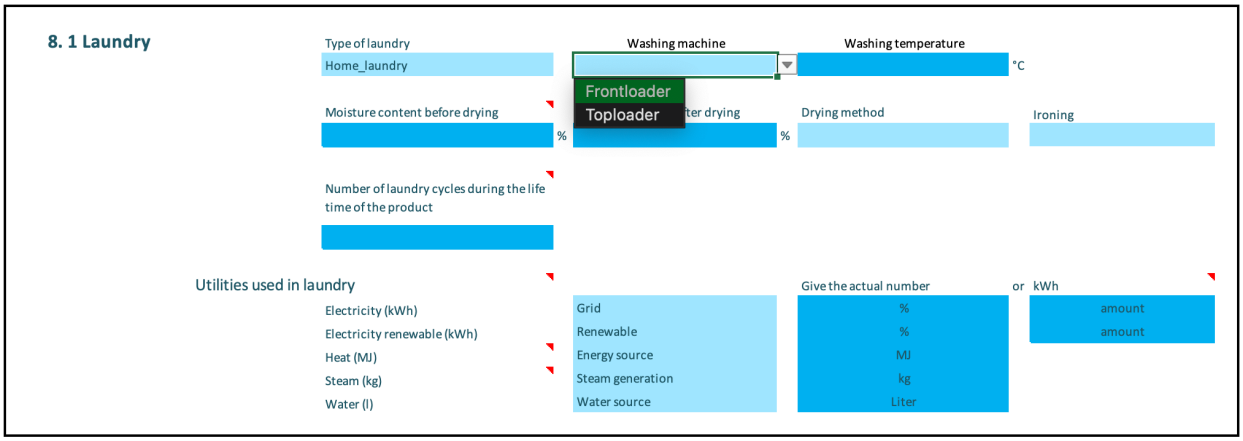


8.2 Data Entry

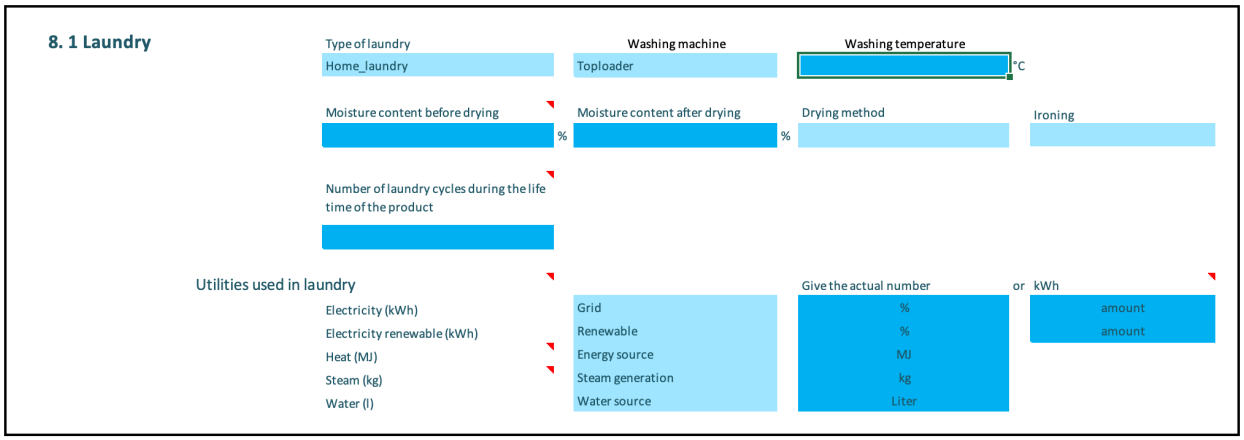
Step 1: Pick a type of laundry process from the drop-down menu.



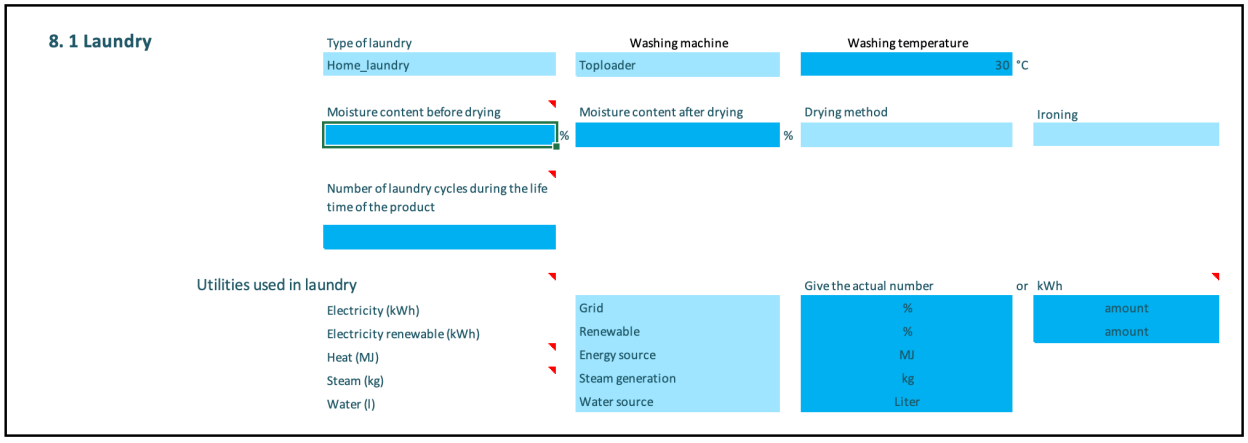
Step 2: Is the laundry machine front loader or top loader. This could be specific for a certain geographical location. Specify accordingly.



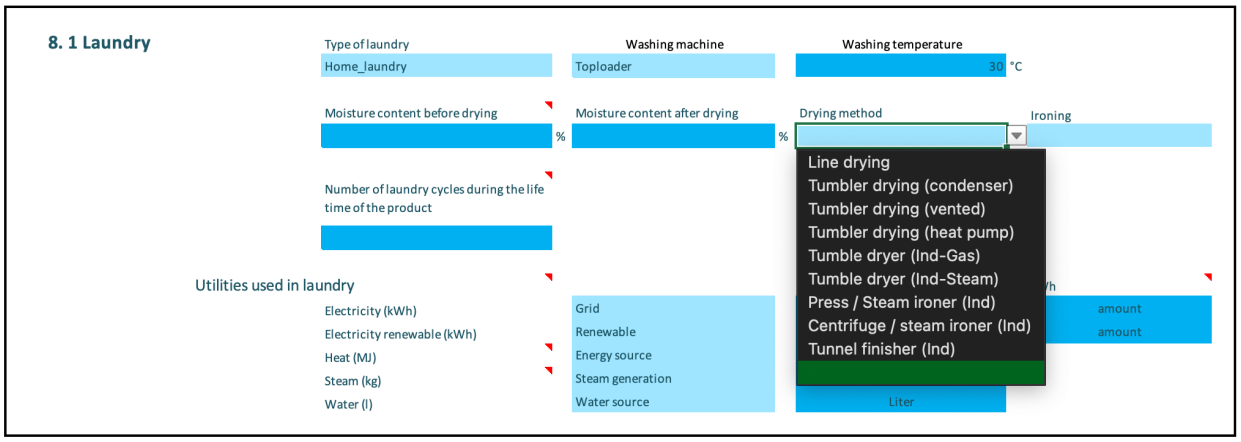
Step 3: Specify the temperature of the wash cycle in degree Celsius.



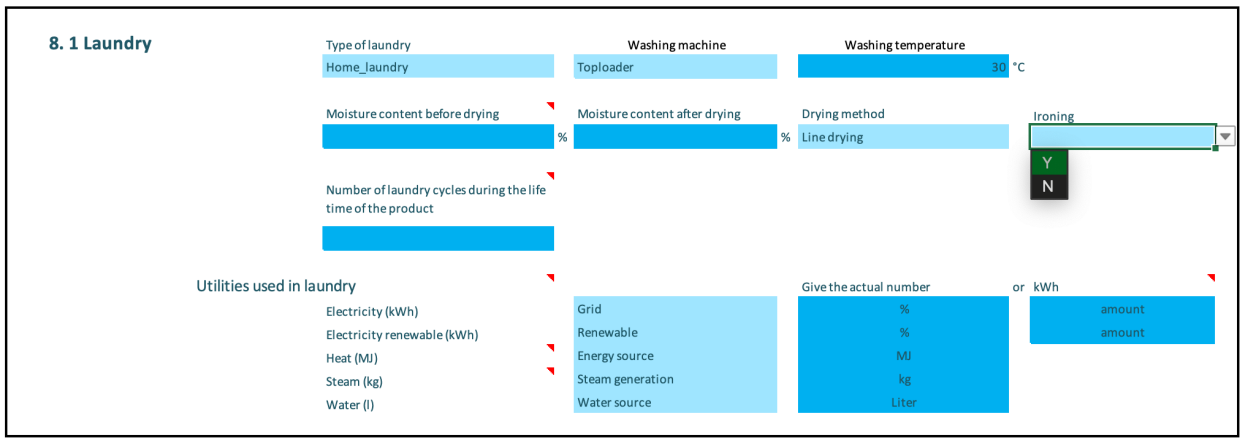
Step 4: This cell asks for the moisture content in the product **before and after** de-watering. This includes centrifuge and pressing. Mention the value in %.



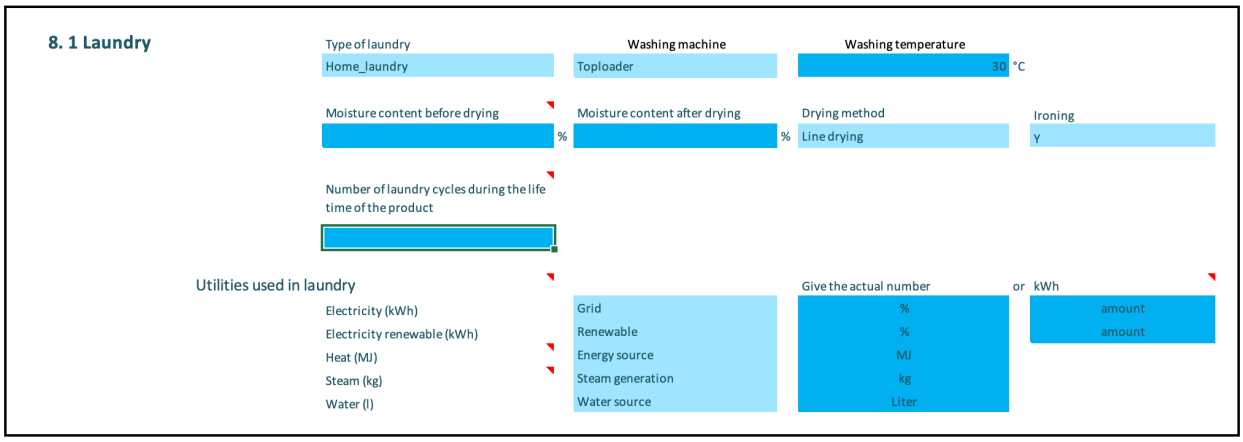
Step 5: From the list in the drop-down menu, pick a method used for drying the product.



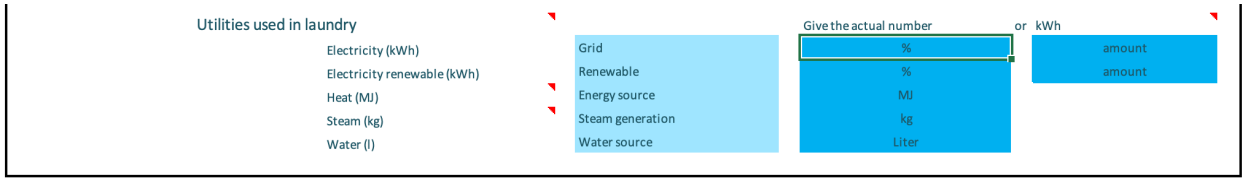
Step 6: The ironing process for the product involves substantial electrical energy consumption, making it a crucial consideration in environmental impact calculations. Please indicate the applicability of this process to your product from the provided drop-down list.



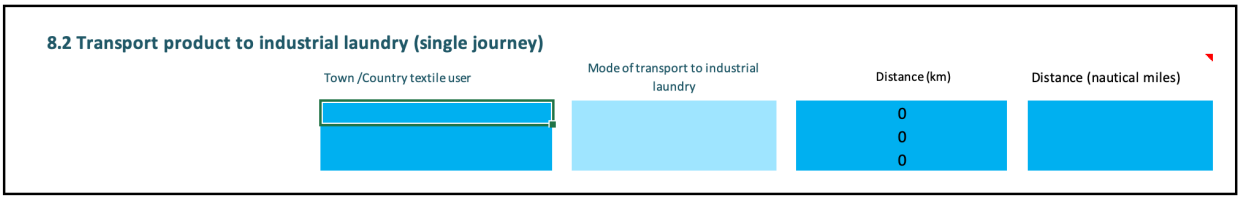
Step 7: The next value is not always known. It also depends on the behavior of the user. Make a realistic estimation. Otherwise, use the minimum amount of laundry cycles guaranteed for the product.



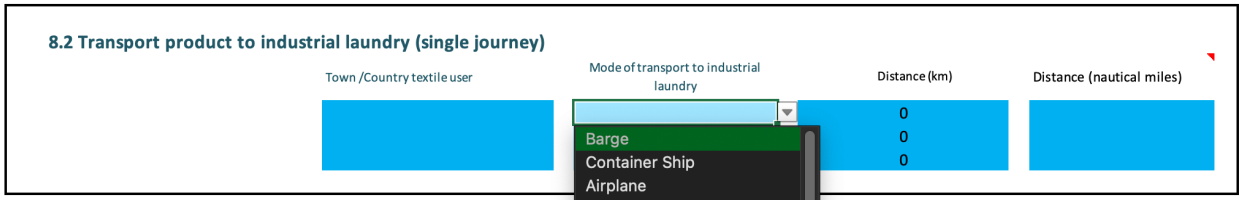
Step 8: Specify the values/amount of all utilities used in the use and care of the product. Make sure to check if the % of renewable and grid is adding up to a 100%. This applies in cases where there is a combination of grid and renewable energy being applied for use and care.



Step 9: The next part of this section considers single journey only. Enter the location (town/country) of the user. This is the distance from industrial laundry to the user.



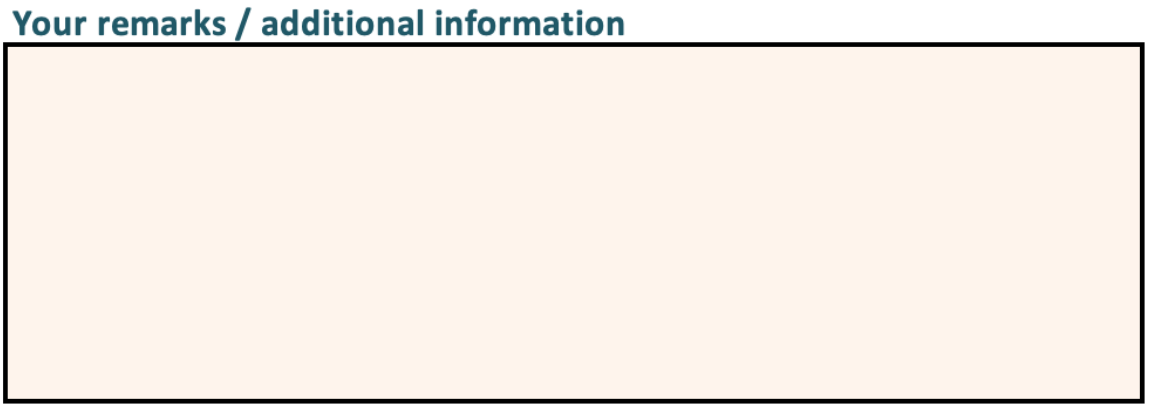
Step 10: Specify the mode of transport. As a next step, it is required to mention distance in nautical miles. The distance in km is then automatically calculated.



9.0 END- OF- LIFE

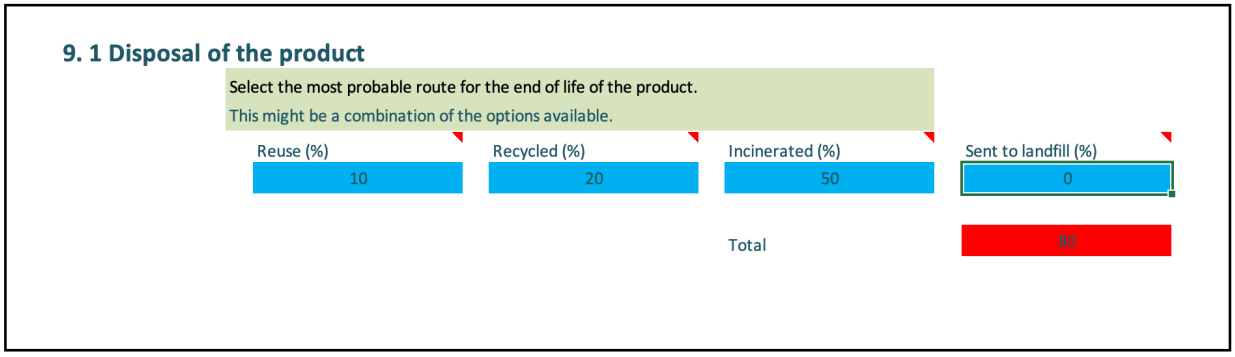
9.1 Introduction

- Select the most probable route for the end – of – life of the product. This might be a combination of the options available. Specify carefully.
- In cases of specialty fabrics or exceptions, mention in the field below all additional comments that you would like bAwear to know.

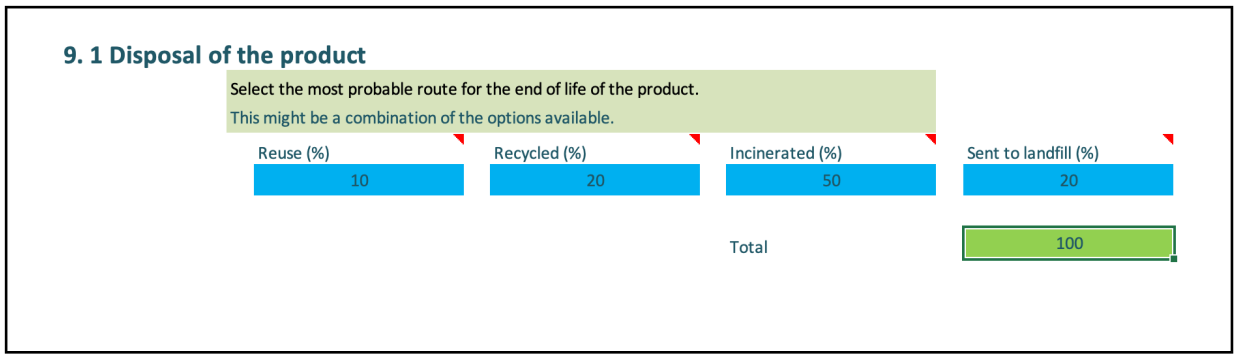


9.2 Data Entry

Step 1: Indicate the percentage breakdown for product handling by specifying the amount to be recycled, reused, incinerated, and sent to the landfill. Reuse refers to portions suitable for scraps or being used as wiping cloth. Recycled denotes material eligibility for mechanical or chemical recycling. Incineration involves burning the product, and the final option is disposal in a landfill. Ensure the total adds up to 100%. Proceed to the next step.



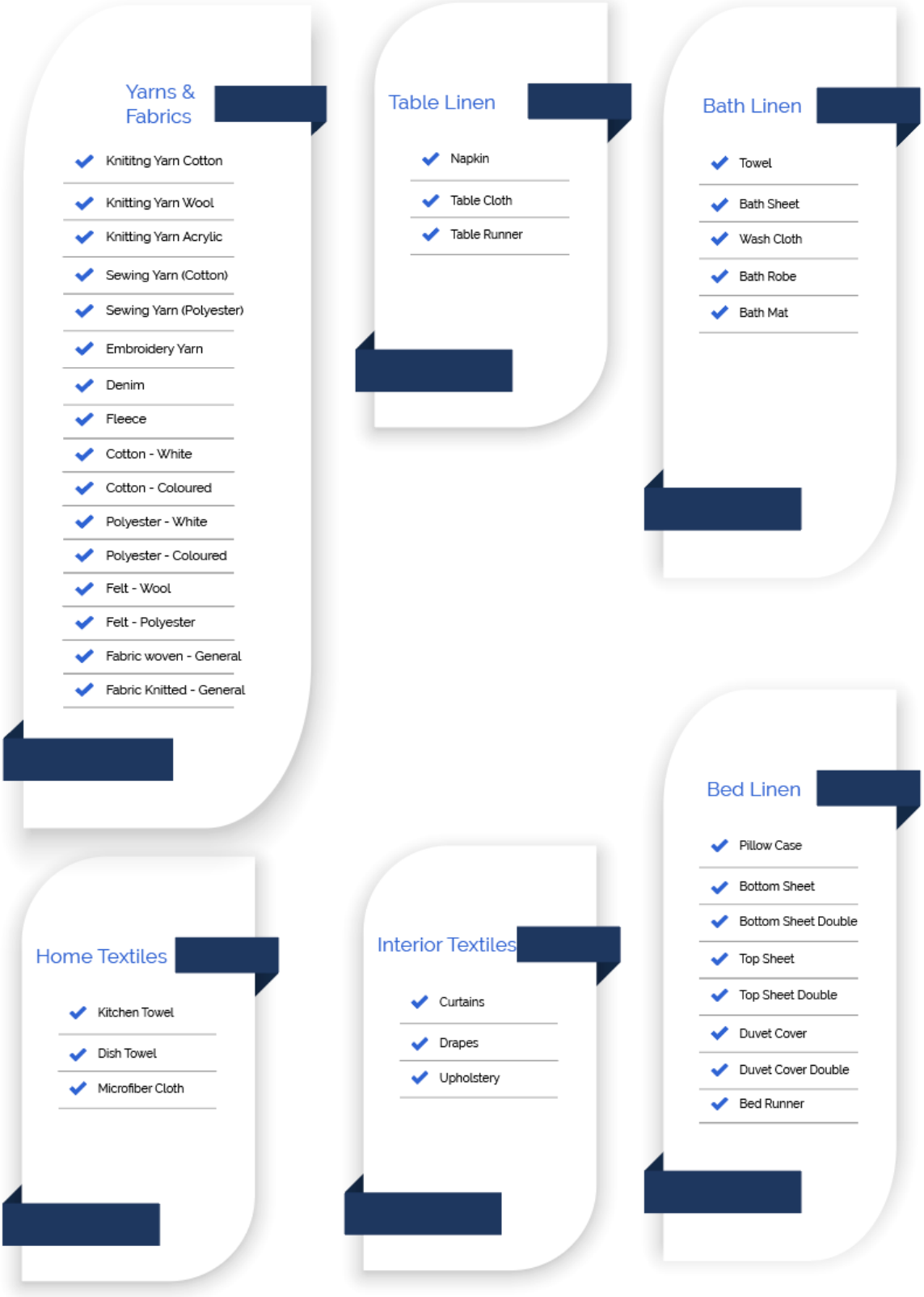
Step 2: Make sure to check the that the total cell has turned green.

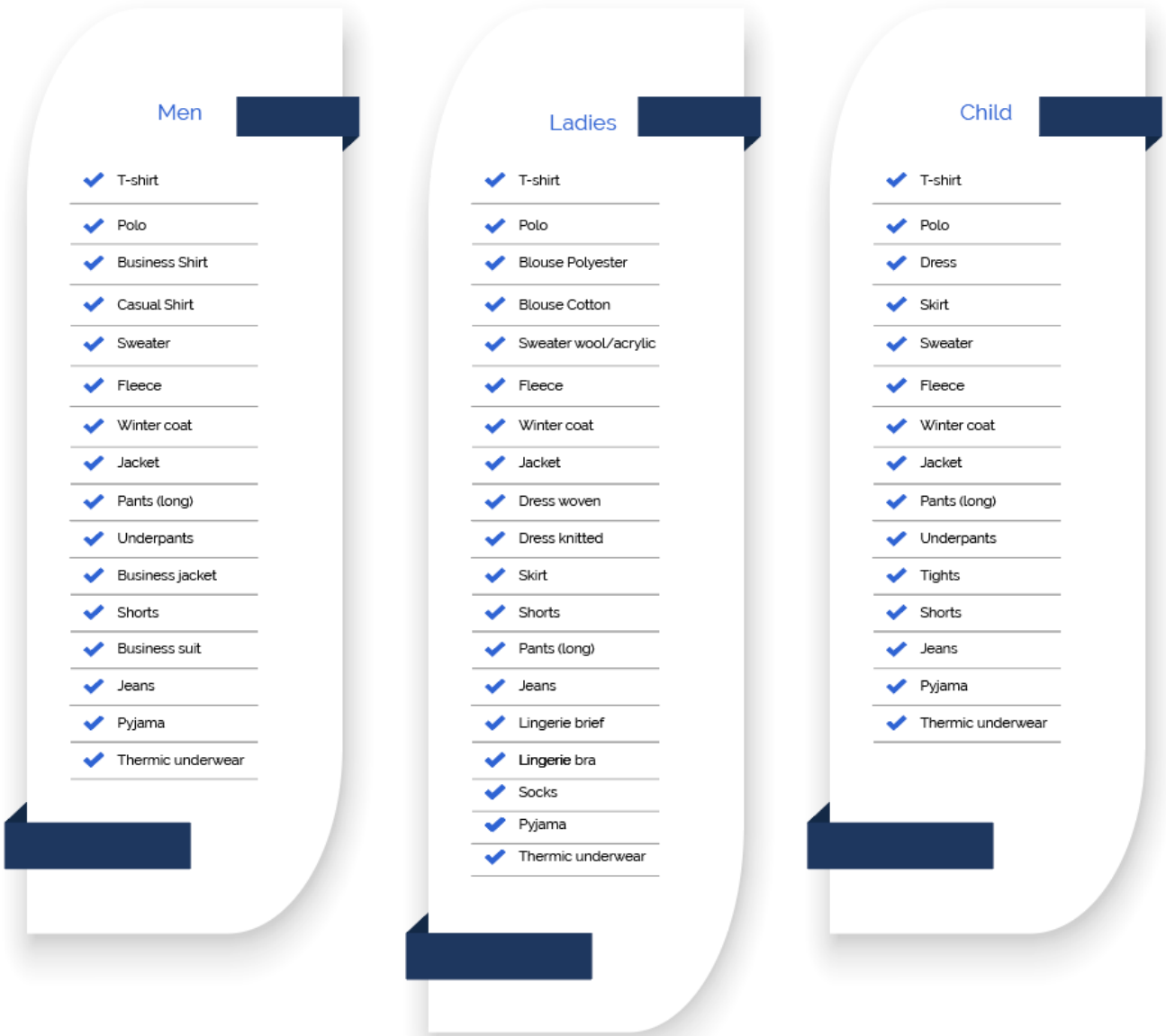

9. 1 Disposal of the product
Select the most probable route for the end of life of the product.
This might be a combination of the options available.
Reuse (%)
10
Recycled (%)
20
Incinerated (%)
50
Sent to landfill (%)
20
Total
100

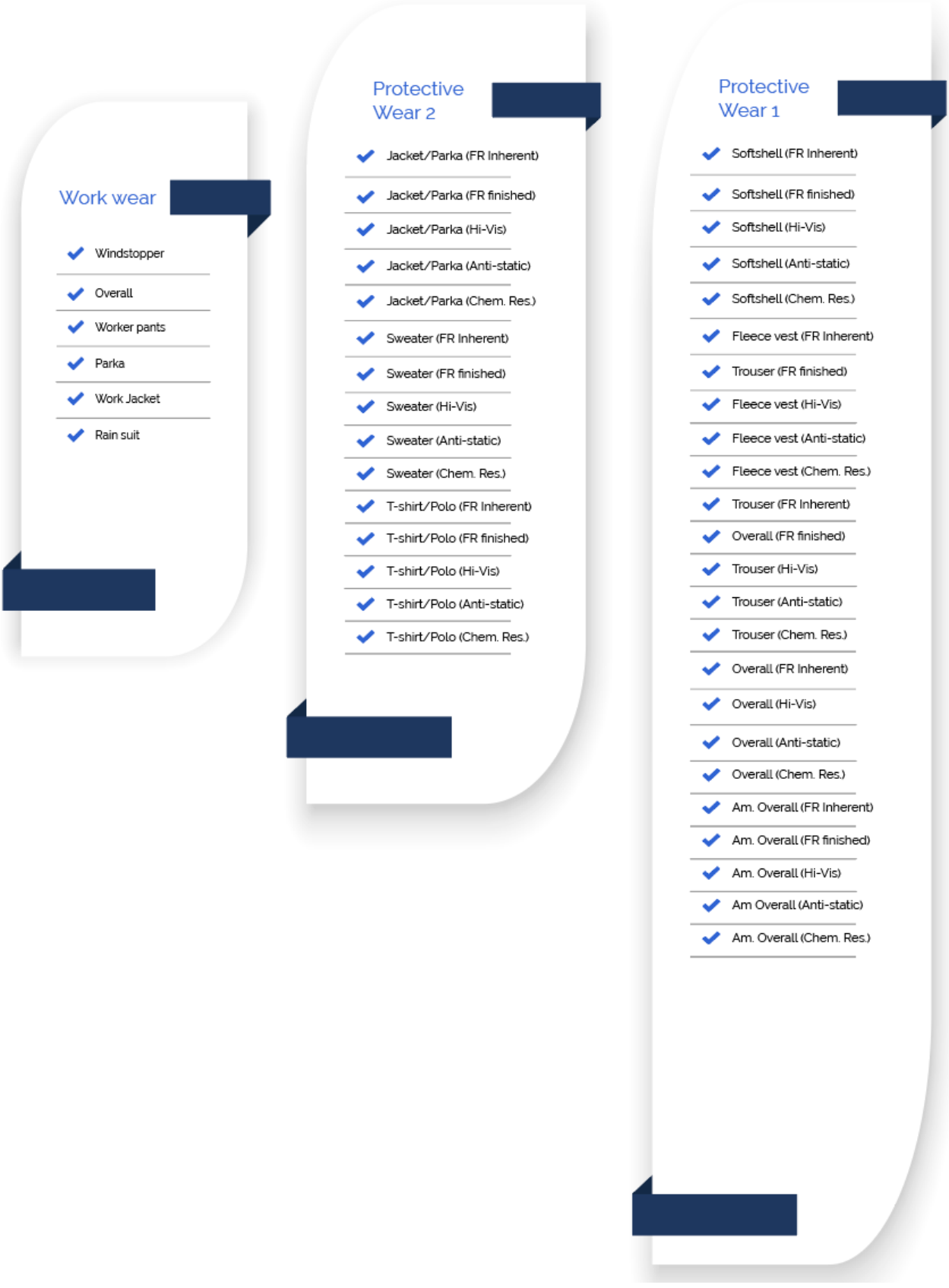
10.0 APPENDIX

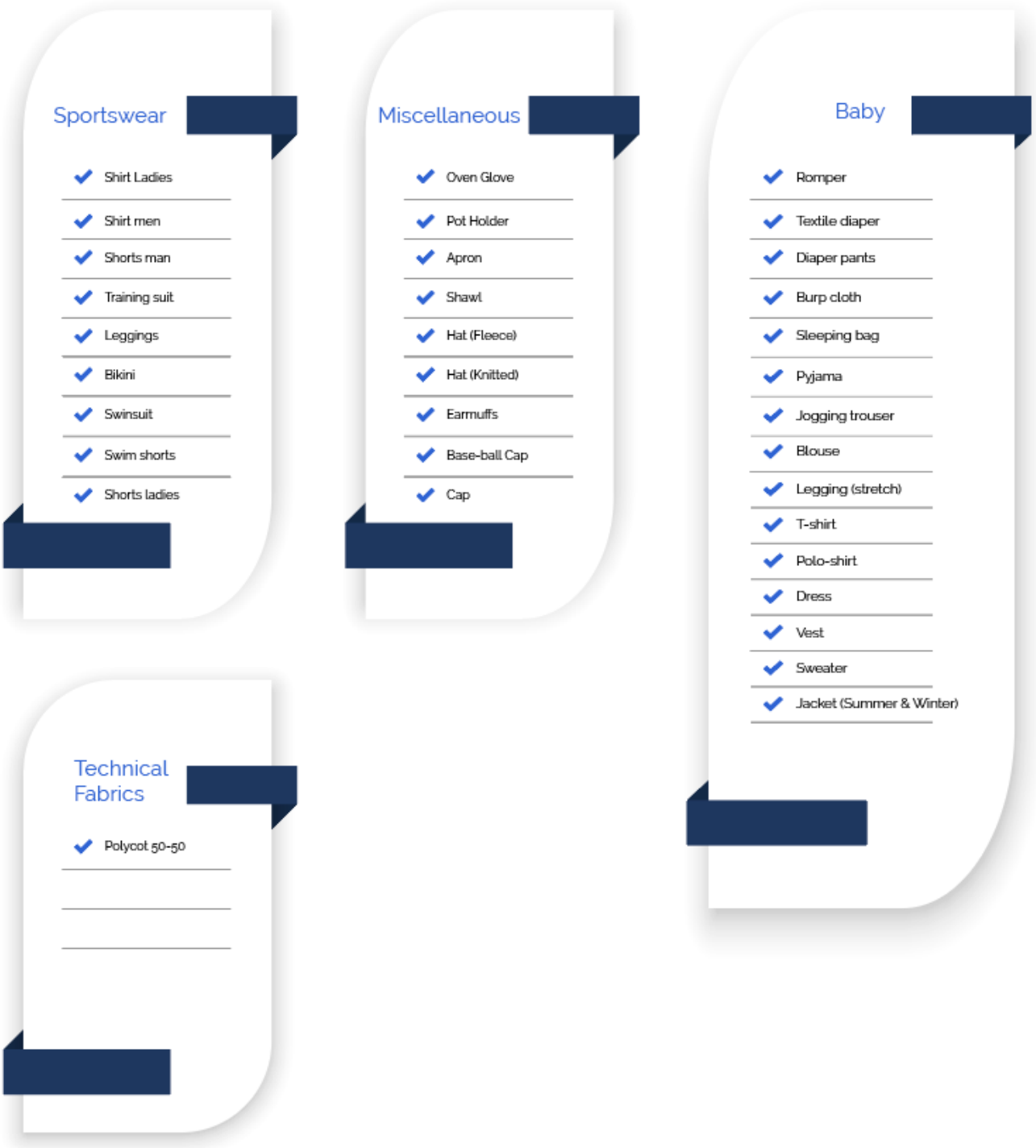
10.1 List of materials in the system

10.2 List of products in the system




Men
T-shirt
Polo
Business Shirt
Casual Shirt
Sweater
Fleece
Winter coat
Jacket
Pants (long)
Underpants
Business jacket
Shorts
Business suit
Jeans
Pyjama
Thermic underwear
Ladies
T-shirt
Polo
Blouse Polyester
Blouse Cotton
Sweater wool/acrylic
Fleece
Winter coat
Jacket
Dress woven
Dress knitted
Skirt
Shorts
Pants (long)
Jeans
Lingerie brief
Lingerie bra
Socks
Pyjama
Thermic underwear
Child
T-shirt
Polo
Dress
Skirt
Sweater
Fleece
Winter coat
Jacket
Pants (long)
Underpants
Tights
Shorts
Jeans
Pyjama
Thermic underwear


Work wear
Windstopper
Overall
Worker pants
Parka
Work Jacket
Rain suit
Protective Wear 2
Jacket/Parka (FR Inherent)
Jacket/Parka (FR finished)
Jacket/Parka (Hi-Vis)
Jacket/Parka (Anti-static)
Jacket/Parka (Chem. Res.)
Sweater (FR Inherent)
Sweater (FR finished)
Sweater (Hi-Vis)
Sweater (Anti-static)
Sweater (Chem. Res.)
T-shirt/Polo (FR Inherent)
T-shirt/Polo (FR finished)
T-shirt/Polo (Hi-Vis)
T-shirt/Polo (Anti-static)
T-shirt/Polo (Chem. Res.)
Protective Wear 1
Softshell (FR Inherent)
Softshell (FR finished)
Softshell (Hi-Vis)
Softshell (Anti-static)
Softshell (Chem. Res.)
Fleece vest (FR Inherent)
Trouser (FR finished)
Fleece vest (Hi-Vis)
Fleece vest (Anti-static)
Fleece vest (Chem. Res.)
Trouser (FR Inherent)
Overall (FR finished)
Trouser (Hi-Vis)
Trouser (Anti-static)
Trouser (Chem. Res.)
Overall (FR Inherent)
Overall (Hi-Vis)
Overall (Anti-static)
Overall (Chem. Res.)
Am. Overall (FR Inherent)
Am. Overall (FR finished)
Am. Overall (Hi-Vis)
Am Overall (Anti-static)
Am. Overall (Chem. Res.)


Sportswear
Shirt Ladies
Shirt men
Shorts man
Training suit
Leggings
Bikini
Swinsuit
Swim shorts
Shorts ladies
Miscellaneous
Oven Glove
Pot Holder
Apron
Shawl
Hat (Fleece)
Hat (Knitted)
Earmuffs
Base-ball Cap
Cap
Baby
Romper
Textile diaper
Diaper pants
Burp cloth
Sleeping bag
Pyjama
Jogging trouser
Blouse
Legging (stretch)
T-shirt
Polo-shirt
Dress
Vest
Sweater
Jacket (Summer & Winter)
Technical Fabrics
Polycot 50-50