

PERFORMANCE DAYS FOCUS TOPIC CONTENT

The Journey to Carbon Neutrality – part #3

Part #1 was to introduce the Focus Topic of carbon footprinting fabric samples and introducing their measurement technologies (Spring 2022)

Part #2 concentrated on the first results from the Suppliers (Autumn 2022)

Part #3 has been a push to get everyone to use similar metrics (so that realistic comparisons can happen) – that is this fair edition!

Currently COP 26 & 27 have highlighted the Climate Crisis – how more carbon is going into the atmosphere that is good for the earth and its inhabitants. It is creating global warming (most seen through dynamic weather that breaks tradition whether it is forest fires, droughts, heavy snow, or hail). Carbon is an element that is on the planet – we cannot get rid of it, but we can control what it does. The worse-case scenario is that it becomes a free element & links with Oxygen to form Carbon Dioxide or with Hydrogen to form Methane – both GreenHouse Gases. The best case is to sequester it and get it stored in the ground (whether as roots of plants or fallen trees which enriches the soil to make it more productive). Carbon is most commonly identified as the by-product from energy.

In 1996 the Paris Climate Agreement set out limits to try & stop the forecast 1.5-degree centigrade rise in temperature. The sooner that it is achieved, the more stable the climate, especially as it is focused on reducing emissions. Over the last 25 years emissions have just risen. Textiles are popularly known as one of the most polluting and carbon intensive activities (in reality transport, heating, and diet are bigger sinks – but apparel is seen as an optional extra to the quality of life). Rather than taking immediate action to decrease the carbon being released, it has been left to the latter moments, almost as if a miracle solution was to be invented to solve the crisis. Al Gore's An Inconvenient Truth movie was released over 15 years ago. Current predictions are that the 1.5 degrees Celsius rise will happen before 2050 and by the next change of the Century it will be over double that. Sea levels will rise, crops will fail, the biodiversity will be suppressed: the end of Homo Sapiens becomes more probable. In Net Zero terms this means reversing the rate that carbon is being released – not an easy thing to do whilst we all strive to sell more product. Being less bad is the right direction, but it is still adding to the carbon footprint – there must now be a drive to have carbon negative status (so more carbon is absorbed during the production process that is released during its entire lifecycle).

Hence we, PERFORMANCE DAYS and Functional Fabric Fair by PERFORMANCE DAYS, set out last year to help this industry work out how bad its individual parts are. The first thing to do was to work out how bad the current output is so several measurement systems have been suggested to work out the LifeCycle Analysis of product. The Higg Index has been a commonly adopted metric by the textile industry (the MSI works good when comparing similar textiles so one type of cotton to another cotton, rather than cotton to polyester). Exhibitors have been offered free

training in helping them towards this objective as well (so costs to commission will be cheaper).

In our mission as leading sustainable marketplace, we want to point out that there are a lot of alternative tools for CO2 evaluation. Therefore, we gave the option to the exhibitors to be able to input an alternative measured result.

As we have seen a high variation in submitted results, we asked to inform if the reading is cradle to gate or gate to gate.

This edition, we will start grouping synthetic fabrics separate from cellulosic and animal fibres into these 3 categories. This will allow for a fair and comparable comparison.

And what exactly does that mean? Regarding the “Focus Topic” category, as was the case in winter, only fabric innovations that can provide concrete data on CO2 reduction will be considered among the submitted fiber innovations. With initial values relating to the CO2 footprint, the aim is to support the industry in making a better assessment in the future in terms of the CO2 footprint when selecting the fibers and materials used. The next step is to support an index that allows the CO2 footprint to be comparable, ideally taking into account the category and fabric strength. Moreover, the question needs to be addressed of how values of natural fibers such as wool or lyocell can be compared with those of recycled polyester, bio-based polyamide or recycled wool, as the CO2 footprint should not be the only evaluation of sustainability. Additionally, the different qualities and various fabric categories, along with unique strengths, must be indicated respectively and accordingly in order to ensure transparency in the evaluation. The road towards CO2 neutrality is still a long one, which is why we wish to generate new approaches and proposed solutions with phase 3. We are nevertheless aware that it is difficult to obtain corresponding data from manufacturers and to present it graphically in such a way that it can be compared with one another.

In general, this year’s Focus Topic distinguishes between three separate categories in order to obtain a differentiated overview of CO2 emissions and thereby increase transparency and comparability:

Category 1: Synthetic fibers

This includes variants made of recycled polyester, recycled polyamide and polypropylene, which save up to 30-40% on CO2 emissions (compared to a classic fleece). Virgin polyester boasts higher values than the recycled variants. Bio-plastics would fall into this category.

Category 2: Fibers made from cellulose

This includes lyocell, hemp, organic cotton, bamboo, linen, Naia-spun fibers or their recycled equivalents, natural blended fibres. Lenzing’s Tencel™ is CO2 neutral, in its undyed versions. Cotton from ReGenerative Agriculture can be CO2 negative.

Category 3: Fibers derived from animals

These include, among others, wool and recycled wool, and wool blends, alpaca, down and leathers fall into this category too. This might prompt the whole vegan

debate. There is a food industry on this planet & whilst the demand exists there will be waste by-products of the meat processing (no cows/ sheeps/ pigs are grown for their leathers, just as no ducks or geese are grown for their feathers). If these materials were not to be used then they would have to be disposed of – which would mean incineration (with the resulting carbon footprint). Details of better practice have been developed (like the Textile Exchange’s Responsible Down Standard) and have been widely adopted. Leather and Wool from Regenerative Agricultural processes that are carbon negative will be highlighted.

The flip side of the pleather debate is that the majority of the alternatives (from banana, pineapple, mushroom feedstocks) have a majority synthetic component. It is recognised that the solution is never arrived at with the first iteration; there are many attempts to get the most suitable result (and that answer will depend on both the technicalities brought in as well as the acceptance & adoption of it), so this development is to be encouraged.

This raises a much wider challenge around whether buying a ‘better’ product will save the world. The short answer might be, not! However, it does raise the subject of whether buying better means that you are not buying bad (therefore a purchase is less impactful), but that only applies if we must purchase, rather than return to the already bought,

For all the previously mentioned categories, values are collected and compared accordingly, making them then comparable with one another.

At future shows, the vision is that only fabric samples with a footprint will be accepted in the PERFORMANCE FORUM, just like the current bar is to only have swatches with a positive environmental aspect to them.

The focus is on carbon, but it is recognised that this aspect is just one of 13 actions within better practice responsibilities: Water Crisis, Eutrophication, Poverty, Biodiversity Loss, Health, Ecotoxicity, Education, Resource Scarcity, Inequality, Over-consumption, Air Pollutants, Affordable Goods & Service – plus Carbon. We are choosing to focus on carbon, but recognise work is required in all areas.

Find the entire Focus Topic online here:

<https://www.performancedays.com/loop/focus-topic/all-focus-topics.html>