



“CLOSING THE LOOP”

—
THE EXCITING CHALLENGE TO DEVELOP CIRCULAR WINTER APPAREL

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“CLOSING THE LOOP”

THE EXCITING CHALLENGE TO DEVELOP CIRCULAR WINTER APPAREL

„FUNCTIONAL FABRIC FAIR“ powered by PERFORMANCE DAYS

November 24, 2020

“CLOSING THE LOOP” – THE EXCITING CHALLENGE TO DEVELOP CIRCULAR WINTER APPAREL

AGENDA



“CLOSING THE LOOP” – THE EXCITING CHALLENGE TO DEVELOP CIRCULAR WINTER APPAREL

THEME

Aligned with this season's Focus Topic
„Nothing to Waste - Closing the Loop“
I would like to look at the topic
from different points of view.

We are all aware that the textile industry, as
the second largest polluter in the world,
must take responsibility for making the best
possible contribution to a sustainable
circular economy in the value chain.



“CLOSING THE LOOP” – THE EXCITING CHALLENGE TO DEVELOP CIRCULAR WINTER APPAREL

THEME

The world generates 5,8 million tons of textile waste annually - textiles which simply end up in a landfill or are burned at end of their lifecycle. But the resources of our planet are not infinite. Closed loop products that are designed for recycling, recovery or reuse can help to reduce waste and to handle resources more responsibly.



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THEME

CIRCULAR ECONOMY

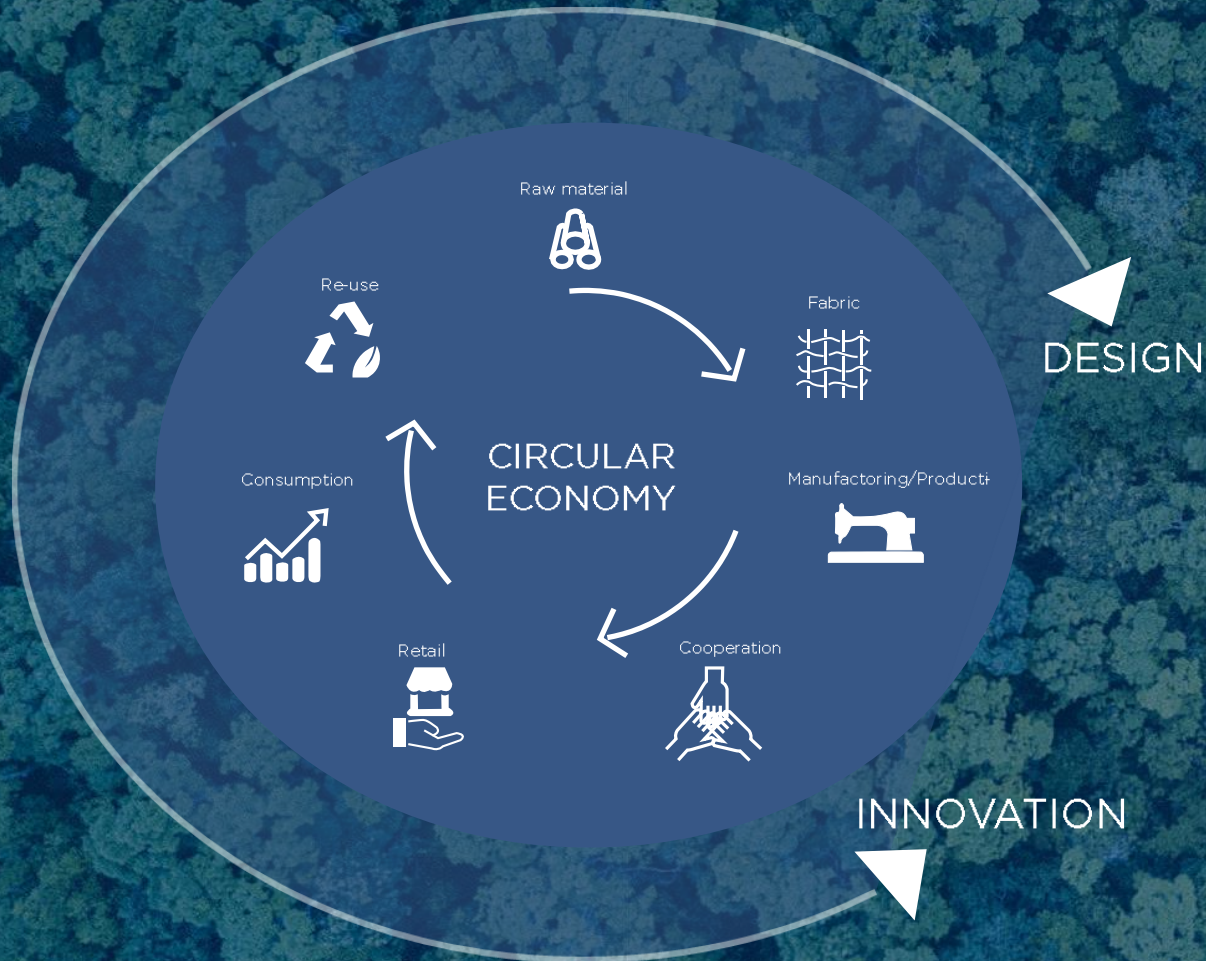


What does circular economy mean?

A circular economy is a systemic approach to economic development designed to benefit businesses, society, and the environment. In contrast to the 'take-make-waste' linear model, a circular economy is regenerative by design and aims to gradually decouple growth from the consumption of finite resources.

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THEME



What does circular economy for textiles mean?

The circular economy works best with mono-component materials per one garment (100% made from one material), which can be recycled completely.

Products that are not compostable need to return their raw materials.

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THEME

Today’s monocomponent options as example on a winterjacket:

1. POLYESTER	
Shellfabric	possible
Membrane	possible
Backing or Lining	possible
Insulation	possible
Trims	possible
Zips	possible besides slider
DWR	C0 or biobased
Packaging	possible

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Today’s monocomponent options as example on a winterjacket:

2. POLYAMIDE/NYLON	
Shellfabric	possible
Membrane	possible
Backing or Lining	possible
Insulation	should be biodegradable
Trims	possible
Zips	not possible yet
DWR	C0 or biobased
Packaging	should be biodegradable

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THEME – EXPLANATION

No waste because biodegradable/ compostable products

Recycling is one approach to minimizing waste, but there are also options that protect soil, air, water from the tons of waste and even some of the toxic components. Materials that decompose or biodegrade in soil or in a landfill are already available. Some fibers can even biodegrade in marine water which is good news as the laundering process suspends tiny fiber particles that flow into the rivers and oceans.

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THEME

Today’s monocomponent options as example on a winterjacket:

3. BIODEGRADABLE	
Shellfabric	possible
Membrane	possible
Backing or Lining	possible
Insulation	possible
Trims	possible
Zips	possible besides chain +slider
DWR	biobased
Packaging	possible

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THEME

Why nothing to waste?

Despite the well-aided public mantra of ‘reduce, re-use, recycle’, it’s estimated that the fashion industry creates around 13 kilograms of fashion waste for every person on the planet every year. That waste is equivalent to a landmass larger than the size of France. To combat this, the industry must adopt a ‘circular economy’ approach: rethinking and redesigning the way products are made, used and disposed of.



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THEME – EXPLANATION

What are ‘closed loop’ systems?

A closed loop system is one in which products are designed, manufactured, used and handled so as to circulate within society for as long as possible, with maximum usability, minimum adverse environmental impacts, minimum waste generation, and with the most efficient use of water, energy, and other resources throughout their lifecycles. This includes recycling of waste back into production systems, as well as making products reusable or repairable.



STATUS QUO

The initial steps of fashion brands today towards closing the loop are particularly around recycling and reusing clothes.

Where do we stand today?

1- CONSUMER CHOICES

As part of their broader sustainability initiatives, brands big and small now run a range of programmes to close the loop, from in-store take-back schemes to the scaling up of recycled product collections.

Sustainability is a complex subject for the average consumer – it's often difficult for them to make ethical choices, despite their good intentions.

Consumers also continue to have a strong appetite for fast fashion.

2- RECYCLING AS A SERVICE

Recycling is a core way for brands and retailers to promote circularity in-store and help consumers navigate sustainability. Donated fibers are now finding their way back into product, extending their lifespan and value of the material.

Brands that offer recycling as a service:

- H&M
- Other Stories
- Marks & Spencer
- Filippa K.

3- REUSE

For businesses that subscribe to a close-the-loop way of thinking, take-back schemes will be crucial for opening up the route to a circular market and guaranteeing a future supply of recycled source materials.

Brands that offer reuse:

- Marks & Spencer
- Mango

4- RESALE & REVALUE

Circularity is giving rise to a new relationship between premium brands and their products by putting a greater focus on reuse and resale of their higher quality fabrics and garments.

Brands that offer resale & revalue:

- The North Face
- Patagonia
- Eileen Fisher
- Filippa K.
- The RealReal

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STATUS QUO

5- LEASE OR REPAIR

Innovations to close the loop through leasing offers and services such as repairs would be more appropriate.

Brands that offer repair:

- Patagonia
- The North Face
- Columbia
- Vaude
- Marks & Spencer
- many more

Brands that offer leasing:

- Filippa K.,
- LeTote,
- Mud Jeans

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BRAND EXAMPLES – CIRCULAR JACKET ADIDAS WITH PARLEY

adidas TERREX FUTURECRAFT.LOOP Anorak

Sustainable Jacket Made from Ocean Plastic

- water-repellent surface
- made of 100% uncolored polyester
- made from Parley Ocean Plastic
- reduces plastic waste
- very easy to recycle
- Primaloft X Parley insulation

Parley is an environmental organization that tries to save the oceans.

It's been predicted that by 2025 all coral reef ecosystem will be gone. It's also predicted that the end of sealife will happen within the next six to to 16 years. To add to that, nine million tons of plastic end up in the ocean every hour. As David Attenborough warns, “We can't afford to be fatigued about climate change.” Parley, of cause, agrees. Having already partneres with adidas, and with new projects in the pipeline, Parley says: ‘let's act now, together, as one’.



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BRAND EXAMPLES – CIRCULAR JACKET

NAPAPIJRI – Circular Series

Warm, snowproof, water-resistant, 100% recyclable: the Circular Series combines Napapijri's most iconic silhouette, the anorak, with its mission of designing a circular future for fashion.

ECONYL® Regenerated Nylon

- This item's fabric is made of ECONYL® Regenerated Nylon obtained from discarded fishing nets and other waste material.

Snowproof

- This item is snowproof and winter-resistant.

100% Recyclable

- All of this item's parts are recyclable thanks to their mono-material composition.

Animal-Free

- No animal was harmed in the making of this item.



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BRAND EXAMPLES – CIRCULAR JACKET

HOUDINI – Fall in Parka

Warm and extremely comfortable parka padded with PrimaLoft. The wind, and waterproof garment will keep you dry and warm in any weather.



Main Fabric: Spheric 2-layer Hardshell™

- Supple, soft and silent stretch hardshell. Waterproof, breathable, lightweight and stowable
- 100% Eco Circle® recycled Polyester
- 100% EcoStorm® polyester membran
- Recyclable

Lining: Spinner Ripstop™

- High density ripstop polyester. Water repellant, highly wind resistant, ultralight and stowable
- 100% recycled polyester
- Recyclable

Padding: PrimaLoft® Silver Insulation Hi-Loft Eco

- A highly water repellant, durable and quick drying alternative to down. Exceptional warmth-to-weight ratio
- 100% recycled polyester
- Recyclable

Source: <https://houdinisportswear.com/de-de/clothing/jackets/mens-fall-in-parka-248514?color=248514967>



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BRAND EXAMPLES – BIODEGRADABLE JACKET

HOUDINI - Lana Jacket

Shell jacket in 100% pure merino wool. The densely woven fabric has natural breathability as well as wind- and water resistance.

 Circular  Recyclable  Renewable  Biodegradable

- made in Wool Shell™ - a light, densely woven 100% merino wool fabric
- No synthetic blends
- No plastic coating
- Lanolin, the natural fat in wool, makes Lana Jacket water resistant without adding any chemicals
- The density of the weave makes the garment highly wind resistant but still very breathable
- Lana Jacket is completely circular
- Lana Jacket is a natural alternative to conventional shell garments
- It works for skiing, hiking or just about any adventure all year around.



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BRAND EXAMPLES – REPAIR – RECRAFTED

PATAGONIA – WORN WEAR

Worn Wear is Patagonia's hub for keeping gear in play

“One of the most responsible things we can do as a company is make high-quality stuff that lasts for years, so you don't have to buy more of it.”

Buying a used garment extends its life on average by 2.2 years, which reduces its carbon, waste and water footprint by 73%. (ThredUp, 2018)

WORN WEAR – RECRAFTED

These are clothes made from other clothes.

Created from thousands of used garments diverted from the landfill, sorted at our Reno Repair Center, designed by a team who sees potential in the things left behind, and finally deconstructed and sewn in Los Angeles—this collection shows the true force of what radical acts of imagination can become.

Source: <https://wornwear.patagonia.com/>



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BRAND EXAMPLES – REPAIR – RESALE – RECYCLE

THE NORTH FACE – CLOTHES THE LOOP



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BRAND EXAMPLES – SORTED – REPROCESSED – REUSED – RECYCLED

COLUMBIA – RETHREADS



- ReThreads Program encourages consumers to bring in their used clothing and shoes in clean, dry condition, to our participating retail stores to be given a new life
- Garments and footwear that are dropped in ReThreads bins in each Columbia store, will be sent to a textiles processing facility through I:CO, a textile recycling solutions provider
- The products are then sorted, reprocessed, and reused or recycled
- Items that are still wearable find new homes through the second-hand market
- Unwearable items are reused for products like cleaning cloths or recycled into fibers for new products such as insulation, carpet padding, stuffing for toys and even new fabrics.

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WHAT'S NEXT?



What's Next?

Greenpeace is arguing that the circular businessmodel is not going far enough. The textile industry should rather be tackling the underlying problem of overconsumption of clothes.

Consumers want to be more sustainable, but need help and education in order to make better choices.

The retail may facilitate this process by more recycling and resale opportunities, but watch out not to end up greenwashing. It should only be communicated with the percentage of 100.

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WHAT'S NEXT?

„2020 has been branded as „the future“ long before its arrival –
envisioned as an era of flying cars or robotic friends.

We have all had different dreams of this future,
and as everything has turned out differently than expected,
it's clear that it will be a time to craft, shape and fix society for generations to come.
We will fix what's broken, instead of breaking what's working.
This is the year when revolutionary acts will come in the form of tangible solutions.“

Extrait of WGSN report „2020 – fix the future“ from 2018

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WHAT'S NEXT?



Everything is different under
Covid-19 pandemy.

If it feels right for all of us that we have to
be acting differently and move towards
circular manufacturing models,
we will egally be able to persue profit and
growth while also creating new value for the
world economy.

The future lies in value oriented business
models.

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DESIGN & COLOR TRENDS

DESIGN RE-SOLUTIONS

- any product design for 2022 will be defined by how it can slot in the fast-emerging but imperfect circular economy
- Designing items that can be remade, reused or resold will educate and incentivise people to be active in circular systems, and will enable brands to profit from a product's future earnings beyond the first point of purchase
- Consumers will increasingly be weighing up their needs versus their wants, so successful designs will focus on minimising climate impact and waste
- Rental is a big opportunity for many brands
- Optimize waste as revenue



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DESIGN & COLOR TRENDS

DESIGN & DEVELOPMENT

- Base design around values as much as aesthetics
- Make small changes: use monomaterials for ease of recycling at the end of a product's life.
- Use recycled materials that are recyclable again at the end-of-life
- Design for slower lifestyles and processes: Promote the appreciation of slower production processes, including naturally dyed and bio-engineered fabrics.
- Address the climate emergency: Optimise modular silhouettes and reactive fibres, minimise your impact on the environment as you go.



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DESIGN & COLOR TRENDS

DESIGN & DEVELOPMENT

- Embrace space-ready fibres: technologies that are being developed for it are filtering down to heighten the performance of extreme adventure wear
- Use tailoring to upgrade minimalism: clean lines and a sparing use of colour will define transitional tailored pieces
- Play with perception through texture: add refined depth to mono-coloured and mono-material minimalism.
- Integrate 3D in your design & development process to optimize and emphasise your craft wisdom and become futureproof.



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DESIGN & COLOR TRENDS

CORONAVIRUS DESIGN PRIORITIES

- The Covid-19 pandemic is complicating attitudes towards sustainability
- Durable, useful products which serve multiple purposes and can be resold are the new drivers of value
- Lasting lifestyle changes, such as home working as a norm, will lead to faster shifts in the way we dress. Review and de-risk smartwear and tailoring
- Thermoregulating base and midlayers present new selling opportunities for at-home use.
- Use fabric and fibre innovation to add value to customers
- Double down on extreme weather resistance in outerwear. Design in extra protective shield-like elements around collars or hoods.



WGSN

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DESIGN & COLOR TRENDS

ACTIVE TREND CONCEPTS A/W 21/22:

- Understand individual consumers: they all want something different out of the active industry
- Design with a modular focus: modular design encourages more use and longevity from a garment – think about how adaptability will work for your consumer
 - Items that function across multiple activities: active and urban
 - Keep them comfortable and practical
 - Consumers are seeking both protection and performance
- Collaborate and learn: Share your skills to help innovate and answer the demands of the active consumer.
- Create products that encourage people to try outdoor sports, including wearable tech, intelligent multifunctional apparel and brands appealing to the fashion-conscious consumer by embracing streetwear trends



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DESIGN & COLOR TRENDS

COLOR

- Build a versatile palette around the core
- Think transseasonal: impact of climate change becomes more apparent and seasons become less distinct
- Use colour to create products that feel relevant year-round
- Choose tones with long-term appeal
- Use colours to enhance wellbeing
- Embrace joy: Choose joyful brights that feel invigorating, but ensure they are versatile, complementing neutrals and pastels.
- Nourishing earth tones
- Think local: choose colours that relate to your immediate market
- partner with local farms or restaurants to use food waste for plant-based dyes.
- Use colour sustainably: use less harmful dyeing methods in your products, and embrace the imperfections that can result from this



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DESIGN & COLOR TRENDS

NATURAL DERIVED COLOUR WILL BE A KEY PART OF FUTURE RESPONSIBLE PRODUCT STRATEGIES

- Invest in understanding dyestuffs from food waste
- Work with global dye suppliers to scale up natural dye production
- Move away from bleaching and invest in natural raw state colours. Challenge the ubiquity of optical whites.
- Aesthetics: due to the popularity of natural dyes and undyed fabrics, neutral colour palettes are key



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DESIGN & COLOR TRENDS

THINK NATURAL

- Bio-based materials will give rise to new aesthetics and reimagine existing ones in a sustainable way
- Use more natural fibres for better biodegradability
- Develop fully recyclable stretch
- build mechanical stretch into product, avoiding stretch ingredients
- Embed wellness properties through fibre and design

Sources for all design & color trends:

WGSN Reports: Big Ideas Fashion 2022, Future Innovations 2022, Sustainability Bulletin March 2020, Sustainability & Innovation Naturally Derived Colors, Coronavirus Global Change Accelerator, Coronavirus Design Priorities, Sustainability & Innovation Bioactive Materials / Innovative Stretch Solutions, Performance Days AW 21/22, Active Material Trend Concepts AW 21/22, Modern Yogis Active Design Capsule SS 21, Outdoor Retailer AW 20/21, Active Intelligence Active Tribes 2021, ISPO AW 20/21 Active, Global Color 2022 & Restorative Color, Active Style Trend Concepts AW 21-22, Womens Active Apparel Key Items Fashion AW 21-22, Mens Active Apparel Core Items Update AW 21-22

ISPO Textrends A/W 21-22 Solutions, ISPO Textrends Summer 2022 – Alexa Dehmel active sports design & consulting



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FABRIC TRENDS – EXAMPLES OF FABRIC FORUM

BIODEGRADABLE MATERIALS



HSU PAI ENTERPRISE

SFY440L
2Layer 4-way Stretch (10k/10k)
185g
86% Polyester Bio-degradable,
14% Elastan/Spandex Bio-degradable



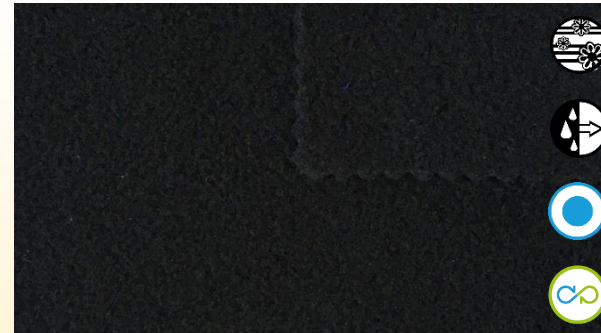
MERRYSON CORPORATION

11381
2Layer mechanical stretch (10k/10k)
136g
100% Polyester recycl. Bio-degradable



LENZING FIBERS

181880100
Insulation
80g
50% Cashmere, recycl., 30% TENCEL(TM) REFIBRA(TM),
20% Polyactide



N-STARS FASHION

NK000996/S5Q
Two side brushed Fleece
172g
100% Ciclo Polyester

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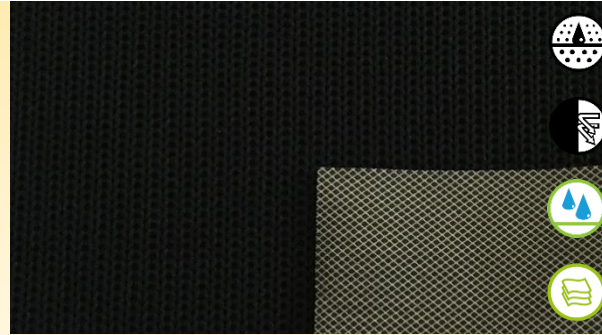
FABRIC TRENDS – EXAMPLES OF FABRIC FORUM

POLYESTER



ASAHI KASEI ADVANCE CORPORATION

ESD0121S2
Baselayer
223g
54% Polyester, recycle., 34% Bio-based Polyester



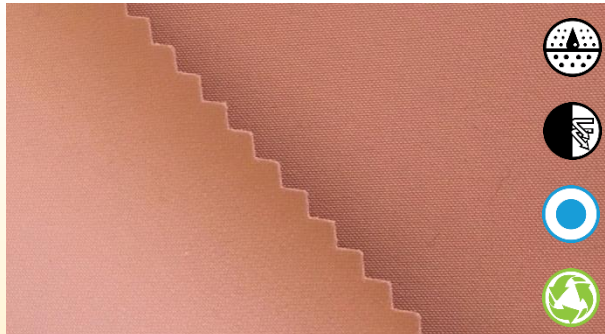
ASAHI KASEI ADVANCE CORPORATION

ESD0127S2
2.5 Layer
257g
100% Polyester, recycle.



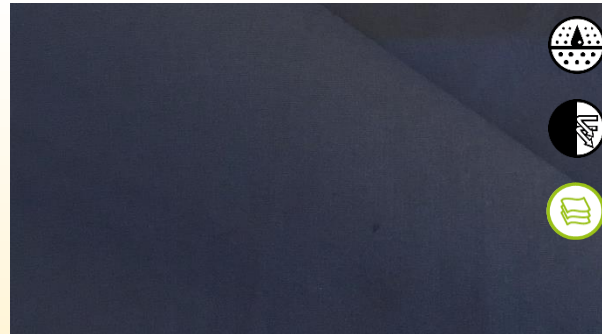
FLYING TEX

BP-RCHCR170PNO
2Layer (20k/15k)
136g
45% BIOPET, 55% Polyester, recycle.



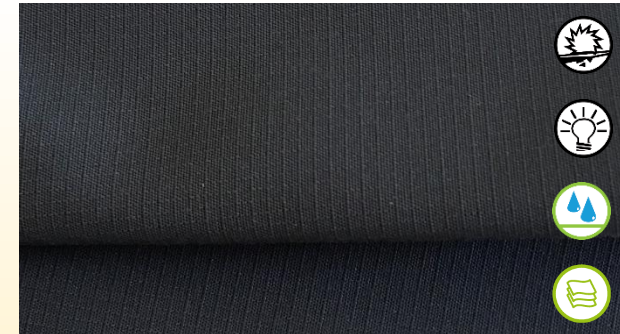
CONCEPT III TEXTILES

DT-1472-Recycle
2Layer (8k/5k)
180g
100% Polyester, recycle.



AMATERRACE INC

N8737/JL3013-3L
3Layer (20k/20k)
125g
Face: 100% Polyester, Back: 100% Polyester



IBQ FABRICS

GLADIATOR
Outer Layer
270g
100% Polyester

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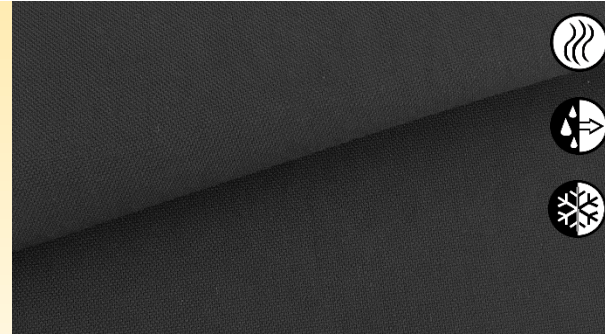
FABRIC TRENDS – EXAMPLES OF FABRIC FORUM

NYLON



CONCEPT III TEXTILES

DT-2255
3Layer (10k/10k)
97g
Face: 100% Nylon, Back: 100% Nylon



37.5 / COCONA LABS

XN17003 (Raco)
Outer Layer
217g
64% 37.5® Nylon, 36% Nylon



IBQ FABRICS

COLARI
Outer Layer
190g
100% recycled Polyamide Cordura



ASAHI KASEI ADVANCE CORPORATION

ESD0297S1
Lightweight Ripstop
32g
100% Nylon



IBQ FABRICS

SNOW
Ripstop
125g
100% Polyamide HT



37.5 / COCONA LABS

XPBT001 (Raco)
105g
54% 37.5® Nylon, 46% Nylon

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CLOSURE

Closure:

I hope I could give you some useful information and inspiration
for the journey of your company.

That's all the time we have for today.

Thank you very much for attending today's webinar:

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You should receive the recording of the webinar later on and if I did not get a chance to answer your questions, please don't
hesitate to contact me via email at alexa.dehmel@active-sports-design.com or at www.active-sports-design.com.

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Thanks again and I look forward to connecting with you all again, very soon!