

ADITYA BIRLA



THAI ACRYLIC FIBRE

Specialty Fibres for a
range of
applications



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THAI ACRYLIC FIBRE

'One of the world's leading acrylic fibre producers'

Thai Acrylic Fibre Co., Ltd. is one of the largest acrylic fibre companies in the world. Incorporated in 1987, the company produces a range of acrylic and specialty acrylic fibres for various end-applications including sweaters, outerwears, innerwears, base-layers, home-textiles, and technical textiles. We are certified with many global level standards.

bluesign®

SYSTEM
PARTNER

OEKO-TEX®
CONFIDENCE IN TEXTILES
STANDARD 100





01

Amicor™

High-performance anti-microbial fibre, which performs up to 100 washes

02

Pilbloc™

Engineered innovated anti-pilling fibre, which performs until life of the garments with soft hand-feel

03

Radianza™

Eco-friendly ready-to-use fibre, which can save water up to 30 litres to produce one sweater

04

Warmos™

Bi-conjugate fibre, which gives very bulky and high keep warm performance with hand-feel close to wool

05

Tropix™

Cotton-like with high UPF protection



TRENDS & FACTS

Healthy | Lifestyle | Pandemic

the health and fitness industry is one of the world's largest and fastest-growing industries today with an estimated global value of 3.7 trillion and double-digit annual growth since 2010.

In 2014, nearly 40% of adults were considered overweight. In the United States, that number jumps to 70%, making it the most overweight country in the world. Millennials and Gen Z'ers are also more stressed out than previous generations.

Social media has fully infiltrated the global fitness industry for better and worse, but both sides of this impact have led to a rise in exercise and activity.

While the global coronavirus pandemic completely shut the private fitness industry down for a period, it actually created a new window of opportunity for health and fitness in the form of the home workout.

The fitness industry today is a multi-trillion-dollar industry linked with clothing, food, drinks, equipment, and gyms.

Sources:

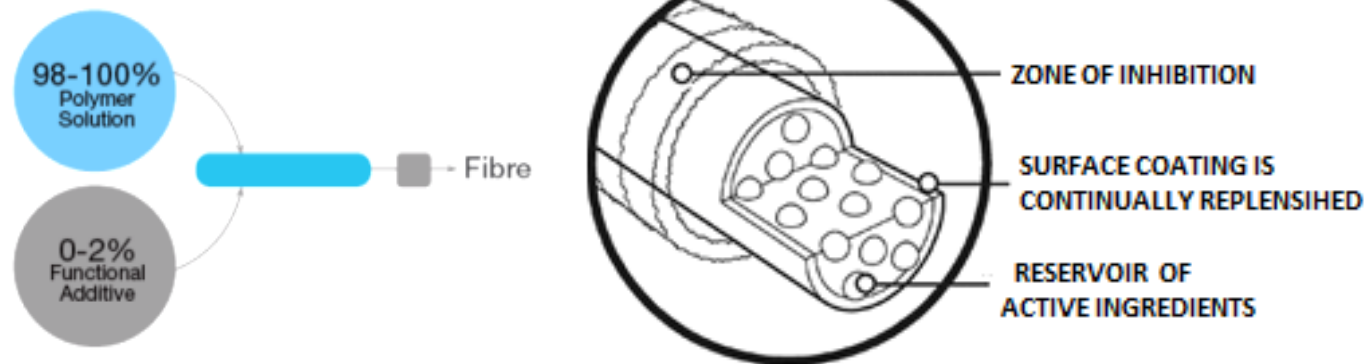
<https://www.lightspeedhq.com/blog/how-health-fitness-became-trillion-dollar-industry/>

<https://wersports.com/blogs/news/when-did-gyms-become-popular>

<https://www.womensportreport.com/why-has-the-popularity-of-exercise-increased/f/359>



- A specialty anti-microbial fibre
- Specifically engineered to incorporate additives into the core of fibre
- Amicor™ promises durable & long lasting anti-microbial function up to 100 washes
- Can be blended to be used at between 20% and 30% of the composition of the article
- Can be converted into products by all conventional techniques- yarn spinning, nonwoven processes



Fibre cross-section

A man and two boys are playing soccer on a grassy field. The man is on the right, wearing a light green polo shirt and khaki shorts, leaning over a soccer ball. Two boys are on the left, one in a green shirt and the other in a blue shirt, both looking at the ball. The background shows a line of trees and a bright sunset sky with clouds.

Amicor^{*}

TM

Key Benefits of Amicor™

Anti-Bacterial

Anti-viral

Anti-Fungal

Durable, Long Lasting Action

Gentle, Safe and Soft

Applicable to All Textile Applications

Quality Assured

Clearly Branded and Identified

Worldwide Marketing Support

Dyeable to brightest and most

Delicate shades

Applications

Innerwear/active wear

Kidswear

Denim

Hospital Uniform

Socks

Home Textiles eg. Bedding and Carpet

Denier and Cut Length Available

1.5D, 3.0D

38mm, 52mm, 64mm, Tow



Pilling – a major issue in synthetics

- Pilling is a major problem with synthetic fibers
- Due to pilling, the garments lose their new look and people eventually discard the garment.
- Impact on customer experience, loyalty and brand-value



Normal fabric



Fabric with Pilbloc™

Fabric after ICI Pill Box Test

- ✓ High pilling grade (pilling grade 4-4.5 in ICI Pill Box Test)*
- ✓ New look even after prolonged use/washing. Lasts for lifetime
- ✓ Soft touch, excellent wearer comfort
- ✓ Lighter in weight w.r.t. cotton, polyester, silk, etc.
- ✓ Cashmere-like special super-soft touch even in yarn dyed varieties
- ✓ Versatile textile applications, can be blended with any natural and synthetic fibres

*Pilling grade also depends on Yarn Twist, Fabric Construction & Blends



Applications

Innerwear/active wear/base layer
Sweaters
Beanies/winter accessories
Hand knitting yarns

Denier and Cut Length Available

0.9D, 1.2D, 1.5D, 2.0D
38mm, Tow



FASHION'S ENVIRONMENTAL IMPACT



The fashion industry has a disastrous impact on the environment. In fact, it is the second largest polluter in the world, just after the oil industry. And the environmental damage is increasing as the industry grows.

The Key Problem



Water Pollution | Water Consumption
Global Warming | Chemicals | Energy Consumption

Fashion & Water Pollution



- 20% of industrial, water pollution comes from textiles treatment and dying
- 200,000 tons of dyes are lost to effluents every year
- 90% of wastewaters in developing countries is discharged into rivers without treatment

Fashion & Water Consumption



- 1.5 trillion litres of water are used by the fashion industry each year
- 200 tons of fresh water are needed to dye one ton of fabric
- 750 million people in the world do not have access to drinking water

Source: World Bank



Ready-to-use fibre

Radianza™ is produced from gel-dyed technology, which is sustainable in term of production process. Using Radianza™ to produce one sweater

- requires ~30 litres less water than a similar sweater made with regular fibre
- ~1.45 kg less CO2 equivalent Global Warming Potential
- Consumes ~25 MJ less Energy
- ~3/4th of the kg SO2 equivalent Human Toxicity Potential



Applications

Sweaters/cardigan
Winter Accessories
Fleeces
Innerwear/active wear/base layer
Socks
Trousers
Home Textiles eg. pillow case, carpet

Denier and Cut Length Available

1.2, 1.5D, 2.5D, 3.0D
38, 51, 64mm & Tow form



- Studies indicate sweaters with Warmos™, in specific blends with acrylic, give similar CLO value as Wool sweaters.
- CLO value indicates the amount of thermal insulation and hence a measure of the thermal comfort of the wearer
- Warmos™ provides Comfort & Feel of Wool and is perfect for a cozy winter



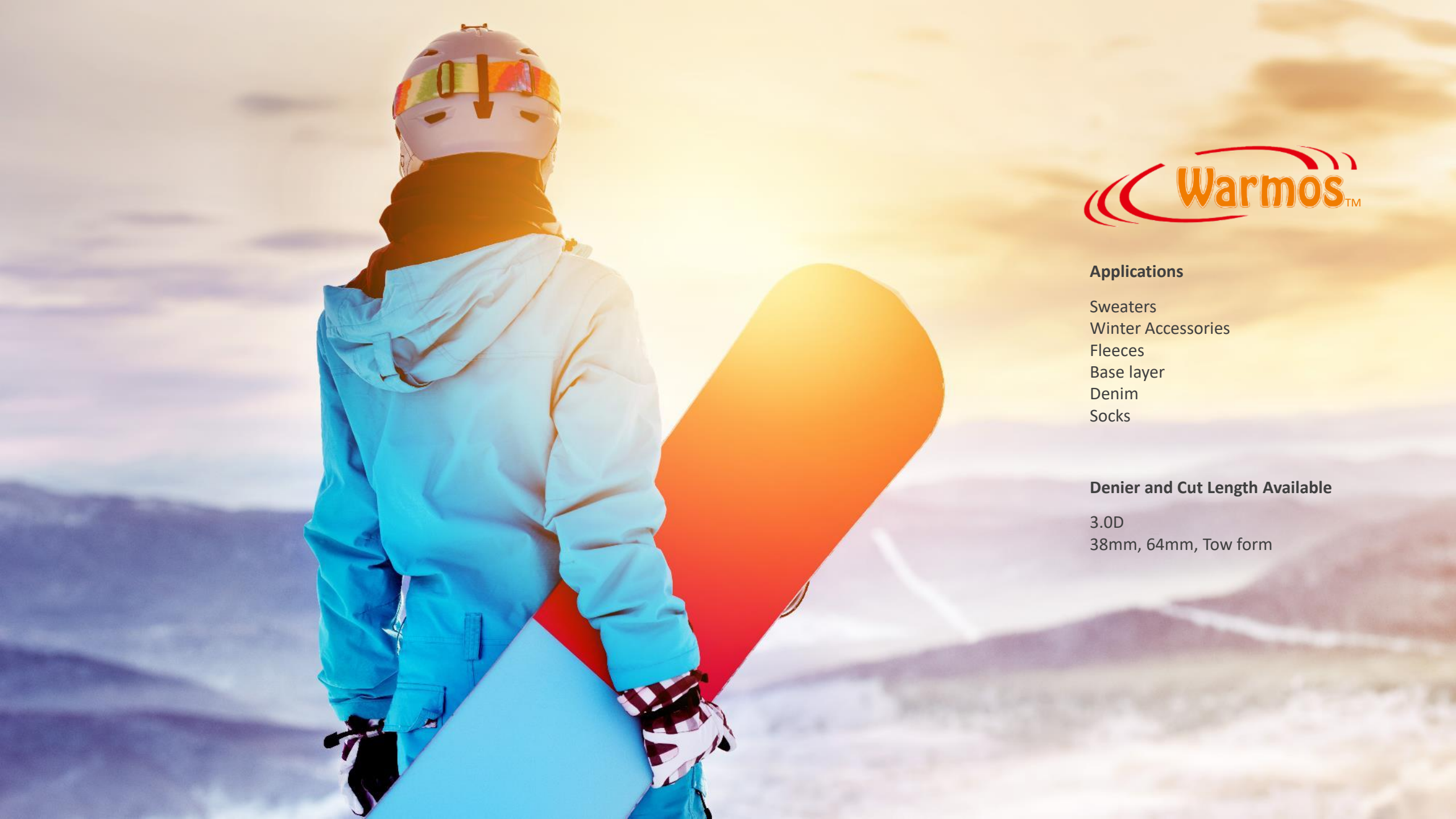


- More Round, Lofty and Bulky Yarn
- Wool Like Spiral Crimp and Hand Feel.
- Use of 35-40% in blend is enough to get that feel.
- High Covering Property
- 3-Tier Effect on Yarn with Shrinkable Conjugate Type



Bi-Component Structure



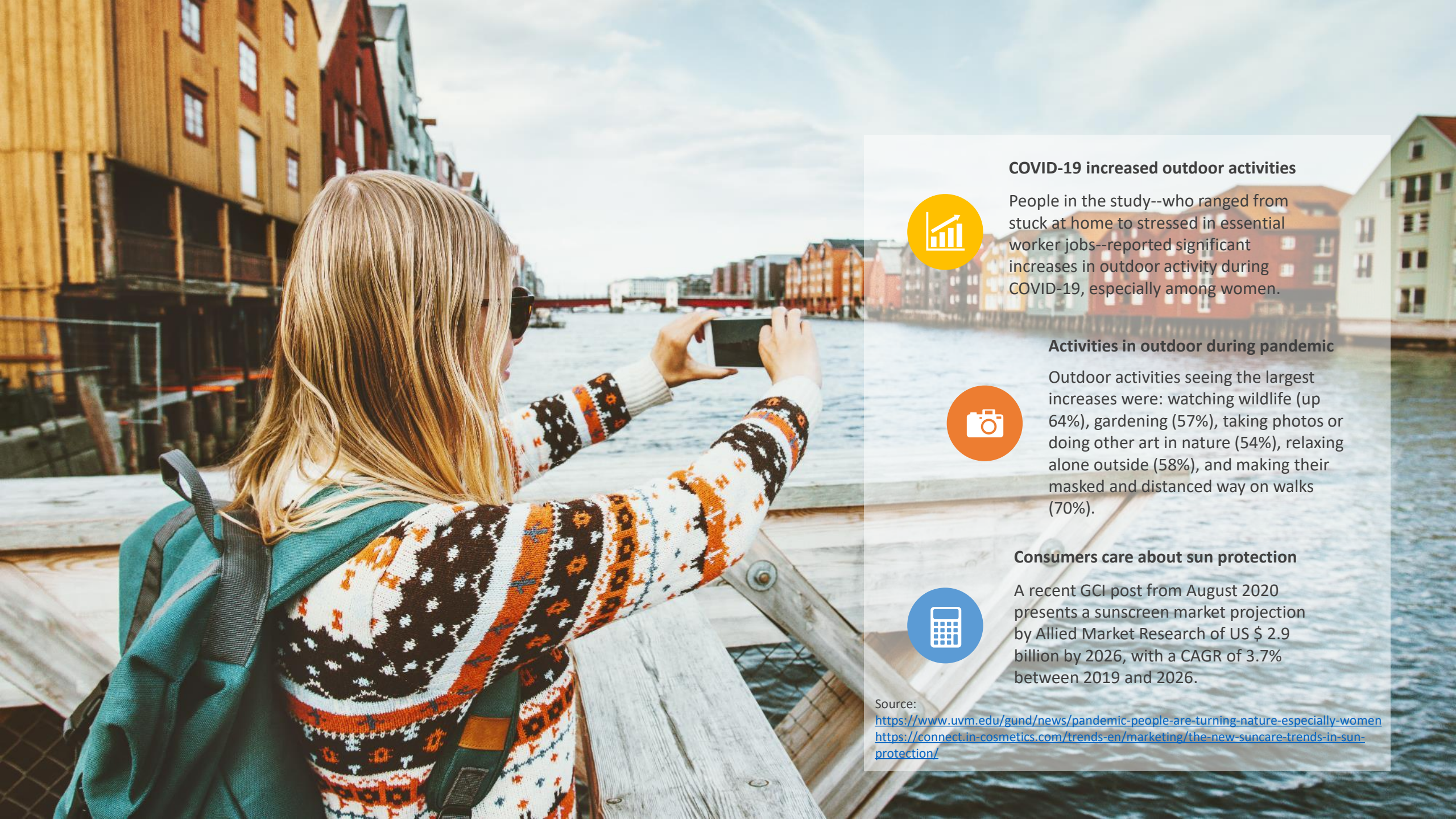


Applications

- Sweaters
- Winter Accessories
- Fleeces
- Base layer
- Denim
- Socks

Denier and Cut Length Available

- 3.0D
- 38mm, 64mm, Tow form



COVID-19 increased outdoor activities



People in the study--who ranged from stuck at home to stressed in essential worker jobs--reported significant increases in outdoor activity during COVID-19, especially among women.

Activities in outdoor during pandemic



Outdoor activities seeing the largest increases were: watching wildlife (up 64%), gardening (57%), taking photos or doing other art in nature (54%), relaxing alone outside (58%), and making their masked and distanced way on walks (70%).

Consumers care about sun protection



A recent GCI post from August 2020 presents a sunscreen market projection by Allied Market Research of US \$ 2.9 billion by 2026, with a CAGR of 3.7% between 2019 and 2026.

Source:

<https://www.uvm.edu/gund/news/pandemic-people-are-turning-nature-especially-women>
<https://connect.in-cosmetics.com/trends-en/marketing/the-new-suncare-trends-in-sun-protection/>

Tropix™

Tropix™ is a cotton-look acrylic fibre.



With Tropix™, one can ensure that the garments look like cotton, feel like cotton but at the same time have better and brighter dye shades as compared to cotton.



Tropix™ fibre has inherent high Ultraviolet Protection Factor (UPF) which gives it an added advantage for summer apparel.



Tropix™

Applications

- Sweaters/cardigan
- Winter Accessories
- Fleeces
- T-Shirt

Denier and Cut Length Available

- 1.5D, 2.0D
- 38mm, Tow form

A person wearing a dark hoodie and pants is sitting on a large, dark rock on a hillside. They are looking out over a landscape of trees and grass under a dramatic sky with large, dark clouds and a warm, golden light from the setting or rising sun. The person is positioned on the left side of the frame, looking towards the right.

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